PERCEIVED INFLUENCE OF HYGIENE AND MOTIVATOR VARIABLES ON THE JOB ATTITUDE OF ASSISTANT PRINCIPALS IN A LARGE URBAN SCHOOL DISTRICT

By

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Abstract of Dissertation Presented to the Graduate School
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Research on the assistant principal is limited, particularly in relation to what motivates these individuals. Furthermore, for many assistant principals opportunities for promotion are very limited. As such, the purpose of the study was to determine (a) the relative influence of motivator and hygiene factors on the assistant principals' job attitude and (b) if there were any differences in the influence based on background/school variables.

The study was conducted using the population of secondary school assistant principals in an urban Florida school district. Each assistant principal was asked to respond to an instrument containing a general background part and a job factors part. The job factors part was, adapted specifically for the study, used to determine how each assistant principal perceived the 16 job factors of Herzberg and others as influencing his or her job attitude. Usable data were collected from 76 of the 83 assistant principals surveyed.

A correlated t test was computed to determine if there was a significant difference ($p<.05$) in how the assistant principals perceived the motivator and hygiene factors. One-way ANOVAs were calculated to determine how background/school variables affected the assistant principals' perceptions of the influence of the motivator and hygiene factors. Post hoc analyses involved the use of three-way ANOVAs, correlated t tests, and one-way ANOVAs.

Based on the results of the study, two major conclusions appeared evident. First, the motivator factors were perceived differently from the hygiene factors, with the assistant principals believing that the motivator factors had a greater influence on their job attitude than did the hygiene factors. However, the assistant principals also attributed considerable influence to the hygiene factors. Second, there was only the most limited relationship between background/school variables and perceptions of the influence on job attitude of the hygiene factors or the motivator factors.

CHAPTER 1

BACKGROUND AND RATIONALE FOR THE STUDY

Public education in the United States was the focus of considerable criticism during the 1980s. Reports such as A Nation at Risk (National Commission on Excellence in Education, 1983) and Action for Excellence (Task Force on Education for Economic Growth, 1983) were reviewed by educators, business leaders, and governmental leaders. These leaders in turn addressed the quality of education and examined ways of improving that quality.

Two areas received considerable attention: the strengthening of the curriculum by increasing graduation requirements and the improving of teacher status. The "push" to improve public secondary schools by increasing graduation requirements is evident in legislation passed in numerous states. In particular, the Florida legislature passed the Recognizing Achievement In Secondary Education (RAISE) Bill (1983) which increased the number of credits needed for high school graduation and required specific additional course work in English, mathematics, science, and social studies.

Higher pay for teachers and merit pay for quality teachers were used by state legislatures as incentives to improve the status of teachers. Leaders in more than one-half of the states attempted to improve teacher status through some form of performance-based compensation plan

(Lessons from the South, 1986). Florida, with a state master teacher program, and Tennessee, with a career ladder program, were the first two states where statewide programs were instituted (Lessons from the South, 1986). Each of these innovations was attempted in an effort to improve the quality of education in public secondary schools.

Boyer (1984), who examined the means of achieving quality in the public high schools of the United States, said "goals, English proficiency, and a core curriculum in a global context are clearly priorities that are central for achieving excellence in today's high schools. But there is a fourth requirement for the attainment of the first three: leadership" (p. 22). In the same vein, Gersten, Carnine, and Greene (1982) found "that a key to enduring, sustained effective educational services is the site administrator--especially the principal" (p. 47).

The importance of leadership has also been noted by the effective school researchers. Reported in Reaching for Excellence (Corcoran, 1985) were the findings of five studies on effective secondary schools. Instructional leadership was identified as a critical factor for success in three of the five studies. The principal in most secondary schools is considered the instructional leader, and according to Sweeney's (1982) synthesis of eight effective school studies, the principal's leadership behavior is positively associated with school achievement.

The amount of time the principal can devote to leadership or any other single role is, however, affected by many factors. One very important factor is the effectiveness of the assistant principal(s). Austin and Brown (1970) conducted a systematic and comprehensive investigation of the relationships between job satisfaction and the career stability of assistant principals. This definitive study has been described as the seminal research to be used as a basic guide towards understanding the role of the assistant principal (Greenfield, 1985b; Kelly, 1987). Austin and Brown's investigation consisted of three substudies: a normative study, a career study, and a shadow study. Over 1000 assistant principals in seven geographic regions of the country were surveyed regarding 59 administrative tasks. The assistant principals worked in secondary schools ranging in enrollment from 500 to more than 2,500. In addition, Austin and Brown observed 18 assistant principals for a period of one week to collect direct observation data. This was the first and only nationwide study to date pertaining to the role of the assistant principal.

Austin and Brown (1970) found that secondary schools have from two to four assistant principals, depending upon the size of the school. The typical duties the assistant principals perform, according to Austin and Brown (1970), can be grouped into six categories: school management, staff personnel, community relations, student activities, curriculum and instruction, and pupil personnel. Some of the duties included in these categories are as follows: budgeting, purchasing, supervising clerical staff, developing the master schedule, developing curriculum, preparing a school-wide examination schedule, evaluating teachers, coordinating substitute teachers, preparing the teacher duty roster, dealing with student discipline, working with student attendance, scheduling assemblies, working with feeder schools, preparing newsletters, representing the school at community functions/meetings, planning emergency procedures, scheduling building usage, and supervising property control (Austin & Brown, 1970). The completion of these administrative duties facilitates the daily operation of the school, thereby providing the principal with additional time for long-range planning, goal setting, and instructional leadership.

Motivation of individuals in the position of assistant principal has become increasingly important in order for the principal to maintain his/her role as the instructional leader. Barnard (1938) in writing about the willingness of individuals to contribute their services to an organization said, "willingness also depends upon the satisfactions that are secured by individual contributors in the process of carrying out the purpose. If the satisfactions do not exceed the sacrifices required willingness disappears and the condition is one of organization inefficiency" (p. 92). Herzberg, Mausner, and Snyderman (1959) also discussed work motivation in The Motivation to Work. They formulated a theory commonly referred to as the two-factor theory (motivational-hygiene theory) of job attitude and reported the effects of these two factors on work performance. They said that

> it should be understood that both kinds of factors meet the needs of the employee; but it is primarily the "motivators" (achievement, recognition, the work itself, responsibility, advancement) that serve to bring about the kind of job satisfaction and . . . the kind of improvement in performance that industry is seeking from its work force. (p. 114)

In their meta-analysis of studies of the relationship between job satisfaction and performance, Petty, McGee, and Cavender (1984) detected a positive correlation between individual job satisfaction and job performance. They also found that overall job satisfaction and individual performance may be moderated by job level. They stated, "it could be that the stronger relationship at higher job levels is due to stronger extrinsic reward contingencies as well as a greater opportunities for intrinsic satisfaction" (p. 719). Schwab and Cummings (1970) opined that the conviction that job satisfaction influenced performance was an outgrowth of the human relations theory of management. In the same vein, Vroom (1964) stated that

> it was typically assumed by most people associated with the human relations movement that job satisfaction was positively associated with job performance. In fact human relations might be described as an attempt to increase productivity by satisfying the needs of employees. (p. 181)

The followers of the social exchange theory also see job performance as directly related to job satisfaction. Organ (1977) reviewed the literature in organizational psychology concerning the concept that satisfaction influences performance. Organ related these findings to the social exchange theory and the idea that productivity of job performance was an appropriate form of reciprocation to an organization for satisfaction received on the job. Organ concluded that the results of this previous research were not conclusive and continuing research on the issue of satisfaction influencing performance was needed.

Since Organ's (1977) review of the research there has been considerable research done on the applicability of the two-factor theory of job attitude in the business and educational arenas. Berl, Powell, and Williamson (1984) examined the two-factor theory as it pertained to the motivation and satisfaction of industrial sales personnel. They concluded that the data did not confirm the two-factor theory. In fact, sales representatives who expressed dissatisfaction with both hygiene and motivator factors had performance equal to or higher than sales representatives who were satisfied with both types of factors. Berl et al. (1984) stated, however, that the findings were not conclusive and additional studies in the industrial sales area were necessary due to the extreme diversity of environments in which selling took place.

Additional researchers investigated the relevance the two-factor theory (Herzberg et al., 1959) has to the business field. Crabbs (1973) assessed the generality of the two-factor theory using employees of the Panama Canal Company. His findings strongly supported the two-factor theory. Cremer (1979) and Khojasteh (1983) studied motivation among mid-level managers, and the two-factor theory was also supported by their data.

Many investigators have examined the applicability of the two-factor theory to educational personnel. These investigators have used teachers, school principals, college professors, and college administrators as their subjects. Goodson (1984) examined the relevance of the two-factor theory to public school teachers in Alabama. Her findings supported the two-factor theory. Additional support of the two-factor theory as it relates to teachers has been found in studies done by Cates (1984) and Helms (1984).

Other investigators have examined the relevance of the two-factor theory to school principals. Some of these investigators have supported Herzberg's (1966) position while others have not. Stefanski (1978), Iannone (1973), and Schmidt (1976) studied school principals and gathered data which revealed support of the original findings of Herzberg et al. (1959). Bechtold (1976) and Gould (1987), however, also studied the two-factor theory as it related to school principals and stated that their results did not support the theory that motivator factors which contribute to job satisfaction and hygiene factors which contribute to job dissatisfaction are on separate continua. Even though his data did not support Herzberg et al. (1959), Gould (1987) concluded that the lack of support may be based on the instrumentation of the study, and he recommended that additional studies be conducted using different instrumentation.

Further studies have been done involving the application of the two-factor theory to personnel in higher education. Schmitz (1977) evaluated the two-factor theory with regard to academic deans at state universities. Schmitz's data were supportive of the dual continuum of job satisfaction and dissatisfaction. Donahue (1978) used the two-factor theory to investigate the difference in motivation between nursing and non-nursing faculty members in private liberal arts colleges.

Researchers have shown support for the two-factor theory when it is related to teachers, school principals, and higher education personnel. Assuming some degree of applicability of the two-factor theory to the assistant principalship, the question becomes how might the theory be applied, and how might top-level school officials use the theory when motivating assistant principals, particularly in large urban school districts with little opportunity of advancement to a principalship. This problem has been particularly acute in large urban school districts such as the Orange County, Florida, Public School System where in 1988-89 there were 28 secondary principal positions and 83 assistant principal positions (Orange County Public Schools, 1988). It was readily apparent that many of these assistant principals were destined to move out of the system or remain in the assistant principal position, i.e., not move into a principalship. Therefore, for those who remain in the position a major concern for top-level leaders in school districts such as the Orange County Public School System is what can be done to continue to motivate these persons. For example, are such persons more responsive when top-level leaders are able to take actions that are seen as contributing to satisfaction of the motivator variables? Are there differences in males and females in regard to which set of factors contribute most to their job attitude? Are there differences in perceptions about hygiene and motivator factors based on the grade level encompassed by the schools where the assistant principals serve? If it could be shown that a particular set of factors (i.e., hygiene factors or motivator factors) is perceived by assistant principals or some subsets of the group (e.g., females) as contributing in a major way to their job attitudes, then the top-level leaders have a basis for shaping their motivating actions.

The Problem

Statement of the Problem

The focus of the study was to determine the extent to which the two-factor theory, as described by Herzberg, Mausner, and Snyderman (1959), applies to the role of assistant principal in secondary schools of a large urban school district and if there were differences based on certain assistant principal background/school factors. Specifically, answers to the following questions were sought for the secondary assistant principal employed in the Orange County, Florida, Public School System during the 1988-89 school year:

1. Were there differences in how the assistant principals perceived the influence of hygiene and motivator factors on their job attitude?

2. Were there differences between the male and female assistant principals in regard to their perceptions of the influence of hygiene and motivator factors on their job attitude?

3. When the assistant principals were categorized according to chronological age were there differences in regard to their perceptions of the influence of hygiene and motivator factors on their job attitude?

4. When the assistant principals were categorized according to their level of formal education were there differences in regard to their perceptions of the influence of hygiene and motivator factors on their job attitude?

5. When the assistant principals were categorized according to their years of experience as an assistant principal were there differences in regard to their perceptions of the influence of hygiene and motivator factors on their job attitude?

6. When the assistant principals were categorized by school grade level (i.e., grade 6-8 or 9-12) were there differences in regard to their perceptions of the influence of hygiene and motivator factors on their job attitude?

7. When the assistant principals were categorized according to the amount of time they reported they spend on (a) school management, (b) staff personnel, (c) community relations, (d) student activities, (e) curriculum and instruction, and (f) pupil personnel were there differences

in regard to their perceptions of the influence of hygiene and motivator factors on their job attitude?

8. When the assistant principals were categorized according to the extent to which they perceived themselves as having a chance to be promoted to a principalship were there differences in regard to their perceptions of the influence of hygiene and motivator factors on their job attitude?

Delimitations

The following confinements were observed in conducting the study:

1. The population was confined to the 83 secondary school assistant principals (38 middle school and 45 high school) employed in the Orange County, Florida, Public School System during the 1988-89 school term; usable data were provided by 76 of these assistant principals.

2. The data about the participants' perceptions of Herzberg's hygiene and motivator factors were collected using an instrument developed by McGowan (1982), revised by Taylor (1986), and further revised by the researcher (see Part II of the Appendix).

3. Data regarding the assistant principals' gender, age, highest degree held, years of experience, school grade level, percent of time spent on various job duties, and their perception of their chances of promotion were collected by means of Part I of the survey instrument which was developed by the researcher and completed by each assistant principal.

Limitations

The limitations of the study were those which are common to most survey research. More specifically, the validity and reliability of the instrumentation was questionable as was the external validity of the findings derived from assistant principals employed within a single school system at a given point in time. Further, because the instrument was sent to the respondents by mail, the interpretation of the instrument items by the respondents and the number of returns received could have been affected.

Definition of Terms

The following definitions were derived to ensure greater consistency in interpreting specific terms used throughout the study:

Assistant principal refers to a person certified in school administration who was assigned to an administrative position directly under the principal in an Orange County Public School System secondary school.

Career position refers operationally to a single item in Part I of the survey instrument where the respondent was asked about his or her chances of being appointed to a principalship within 5 years.

Operationally, hygiene factors (dissatisfiers) refer to those 10 factors evaluated by the assistant principals using the survey instrument; they are as follows: supervision, company policy and administration, working conditions, interpersonal relations with peers, interpersonal relations with subordinates, interpersonal relations with superiors, status, job security, salary, and personal life. Theoretically, these factors contribute to the workers' feelings of dissatisfaction with the job.

Job attitude refers to an individual's affective behavior toward work. Job attitude is an emotional response toward the people, things, and situations in the individual's work environment. A positive attitude toward work is conceptually equivalent to job satisfaction. A negative attitude is equivalent to job dissatisfaction (Vroom, 1964, p. 99).

Operationally, motivator factors (satisfiers) refer to those six factors evaluated by the assistant principals using the survey instrument; they are as follows: achievement, recognition, work itself, responsibility, advancement, and possibility of growth. Theoretically, these factors contribute to the workers' feelings of satisfaction with the job.

Secondary schools refer to schools established to teach students in grades 6 through 8 or grades 9 through 12.

Two-factor theory or motivation-hygiene theory refers to Herzberg's theory that job satisfaction is comprised of two different sets of factors. These two sets of factors include motivator factors (satisfiers) which contribute to either job satisfaction or no job satisfaction, and hygiene factors (dissatisfiers) which contribute to either job dissatisfaction or no job dissatisfaction.

Upwardly mobile refers operationally to those assistant principals who responded to the career position item on the survey instrument that their chances of advancement to a principalship within 5 years were almost certain.

Procedures

The problem in the investigation was to determine the extent to which the two-factor theory as described by Herzberg et al. (1959) applied to the assistant principals employed in the Orange County Public School System and to determine if there were differences based on certain background factors of the assistant principals. The Orange County Public School System is a large urban school district encompassing Orange

County, Florida. During the 1988-89 school year, there were 46,503 students enrolled in grades 6 through 12. There were 18 middle schools with enrollments ranging from 832 through 1,516 and 10 high schools with enrollments ranging from 1,045 through 3,457. During the 1988-89 school year, 83 secondary school assistant principals, including 38 middle school assistant principals and 45 high school assistant principals, were employed in the Orange County Public School System. The total number of secondary school principals in the Orange County Public School System was 28, including 18 middle school principals, and 10 high school principals (Orange County Public Schools, 1988). In the following paragraphs the study participants are described, the instrumentation is explained, the data collection procedures are detailed, and the data analysis procedures are described.

Study Participants

The participants were the 83 secondary school assistant principals employed by the Orange County Public School System in 1988-89. The entire population of secondary assistant principals in the district was surveyed; therefore, no sample selection was necessary. As has been noted, 76 members of the population provided usable data.

Instrumentation

The instrument used in the study consisted of two parts. The first part of the instrument that the assistant principals completed was designed by the author and was used to collect biographical data, the percent of working time spent in six duty categories (Austin & Brown, 1970), and their opinions of their chances of promotion to a principalship. The second part of the instrument was used to collect data pertaining to the evaluation of 16 job factors (Herzberg et al., 1959). It was taken from an instrument developed by McGowan (1982), revised by Taylor (1986), and further revised by the researcher.

Part II of the instrument was submitted to a panel of three University of Florida faculty members who examined the instrument for content validity. To check reliability, the instrument was completed by 15 educators who were not study participants. The same 15 persons, after a 48-hour period, were readministered the instrument and their answers from both administrations were tallied. The consistency of the item response from two administrations was estimated using the Spearman rho correlation. Over 87% of the 32 "pretest" to "posttest" correlations were significant at the .05 level. The range of rho values was from .001 through .468.

The instrument was analyzed by grouping all the hygiene items together (e.g., numbers 2, 3, 4, 6, 8, 11, 12, 13, 15, and 16) and then grouping all the motivator items together (e.g., 1, 5, 7, 9, 10, and 14). The means were computed for each of the hygiene items which represented the hygiene factors and each of the motivator items which represented the motivator factors. Furthermore, an overall mean item score was computed for the hygiene items/factors collectively and for the motivator items/factors collectively.

Data Collection

A list was compiled of all secondary school assistant principals employed with the Orange County Public School System during the 1988-89 school term. A survey packet was sent to each assistant principal introducing the study and requesting his/her assistance in completing the survey material. The survey packet included the following:

1. A letter to the participant
2. A two-part survey.

One month after the mailing of the survey packet, a follow-up letter and another copy of the two-part survey were sent to those assistant principals who had not returned their packets in an attempt to increase the rate of return of the survey. Of the 76 persons who provided usable data, 53 responded to the first mailing, and the second mailing resulted in 23 additional responses.

Data Analysis Procedures

Since in question 1 the assistant principals were examined as a single group with two measures, it was decided to use a correlated t test. According to Huck, Cormier, and Bounds (1974) the correlated t test is used in a "research situation in which a single group of subjects is measured twice" (p. 53). Therefore, to answer question 1, in which each of the assistant principals had two scores, an overall hygiene mean item score and an overall motivator mean item score, a correlated t test was calculated to determine if there was a significant difference ($p<.05$) between the two means.

The statistical technique used to answer research questions 2-8 was a one-way analysis of variance (ANOVA) which is intended "to compare groups in terms of the mean scores" (Huck, Cormier, & Bounds, 1974, p. 58). The assumed independent variables varied for questions 2 through 8. The independent variables are identified in the specifics given for each question (see Part I of the Appendix). The two dependent variables, however, remained constant for questions 2 through 8. These were the responses to the group of hygiene items and the responses to the group of motivator items.

Specifically, in order to answer question 2, which focused on the difference between perceptions of males and females, gender was the independent variable and two ANOVAs were done, one to compare male and female responses to the group of hygiene items and the other to compare the male and female responses to the group of motivator items based on overall means for the hygiene items/factors and motivator items/factors. Question 3 focused on the difference in perceptions among age groups; five age categories were used as the independent variable and two ANOVAs were done, again one for the hygiene items and one for the motivator items based on overall means for the hygiene items/factors and total score for the motivator items/factors. To answer question 4, which focused on the difference in perceptions based on level of formal education, the highest degree held was the independent variable and two ANOVAs were done, one for the hygiene items and one for the motivator items based on overall means. Question 5 focused on the difference in perceptions as a function of years of experience as an assistant principal. Using five experience categories, two ANOVAs were done, one for the hygiene items and one for the motivator items based on the overall means. Question 6 focused on the difference in perceptions of assistant principals in schools with grades 6-8 and those in schools with grades 9-12. Again, two ANOVAs were done, one for the hygiene items and one for the motivator items based on overall means. To answer question 7, which focused on the difference in perceptions as related to time spent in six task areas, the ANOVAs were computed with the assistant principals being grouped according to the following categories of time spent in each of the six task areas: (a) 0-25% of time spent, (b) 26-50% of time spent, (c) 51-75% of time spent, and (d) 76-100% of time spent. To answer question 8, which focused on the difference in perceptions as a function of the assistant principal's "no chance" or "almost certain chance" response to the item about possible advancement, two ANOVAs were done, one for the hygiene overall mean and one for the motivator overall mean.

In addition, as is reported in the last major section of chapter 3, given the findings from the ANOVAs, selected post hoc analyses were conducted. These involved the use of three-way analysis of variance, correlated t test, and one-way analysis of variance on selected hygiene items and selected motivator items.

Organization of the Remainder of the Research Report

Chapter 2 is a review of pertinent literature. Chapter 3 contains the data presentation and data analysis. Chapter 4 contains the summary, conclusions, and discussion.

CHAPTER 2

REVIEW OF THE LITERATURE

The review of literature is presented in five sections. In the first section, job satisfaction and job motivation are discussed. A review of selected theories of job motivation is presented in section two. The two-factor theory as proposed by Herzberg et al. (1959) is discussed in section three. Research related to the two-factor theory is reviewed in section four. The assistant principal position is discussed in the final section of the review.

Job Satisfaction and Job Motivation

Since the 1930s, the study of job satisfaction and job motivation has been of interest to researchers of organizational behavior. One of the first major studies of job satisfaction was done by Hoppock in 1935. The importance of Hoppock's (1935) study was threefold. First, the study was comprehensive. Second, Hoppock not only identified variables that contributed to job satisfaction, but he also showed that they contributed in different ways according to the individual and the job. Finally, Hoppock's research was important because it was a starting point from which later studies could evolve. Over the years, these studies have shifted in focus from the relationship between job satisfaction and the performance to an attempt to identify the causes of job satisfaction.

Since the mid-1970s research on job satisfaction has included a focus on job motivation.

Job satisfaction has been defined by various people in various ways. Hoppock (1935) defined job satisfaction as " any combination of psychological, physiological, and environmental circumstances which cause a person to say he is satisfied with the job" (p. 47). Job satisfaction was defined by Smith, Kendall, and Hulin (1969) as "the feelings a worker has about his job" (p. 6). In the same vein, Bullock (1984) said "job satisfaction is an affective response to work" (p. 1). Hopkins (1983) described job satisfaction as "the fulfillment or gratification of certain needs of the individual that are associated with one's work" (pp. 21-22). Locke (1969) stated that "job satisfaction and job dissatisfaction are a function of the perceived relationship between what one wants from one's job and what one perceives it as offering or entailing" (p. 316). He noted that all definitions of job satisfaction in some way deal with the rewards coming from the relationship between the individual and the organization (extrinsic rewards) and the rewards coming from the relationship between the individual and the job itself (intrinsic rewards). In order for rewards to be a factor there must be individual needs, and, after reviewing the definitions of job satisfaction, it can be concluded that most definitions assume the existence of individual needs (Gould, 1987).

Definitions of job motivation like job satisfaction emphasize the importance of individual needs. McAfee and Champagne (1987) stated that the theories of motivation

> assume that motivation is caused by a need or goal deficiency experienced by an individual. These deficiencies can be physiological (e.g., a physical or bodily need such as food, water, and air) or psychological (e.g., a desire for status, recognition, or a feeling of achievement. (p. 94)

Gould (1987) explained that motivation is based on an individual's desire to satisfy particular needs. Hersey and Blanchard (1977) stated that motivation was "the level of effort an individual is willing to apply toward the achievement of a particular goal or motive" (p. 16).

The dependence on the satisfaction of individual needs of both job satisfaction and job motivation has led many researchers to conclude that job satisfaction and job motivation can not be separated. Horton (1987) reviewed the literature and concluded that job satisfaction was "an extension of the hedonistic principle: Human behavior is calculated to maximize pleasure (satisfaction) and minimize pain (dissatisfaction). If one accepts this principle, it follows that satisfaction and motivation are part of the same process" (p. 75). Likewise, from his study of motivation Vroom (1964) found that

> the study of motivation by psychologists has largely been directed toward filling in the missing empirical content in hedonism. As in the hedonistic doctrine, people are assumed to behave in ways that maximize certain kinds of outcomes (rewards, satisfiers, positive reinforcements, etc.) and to minimize other outcomes (punishments, dissatisfiers, negative reinforcement, etc.). (p. 10)

Since the reviewed literature can be used to support the interrelatedness of job satisfaction and job motivation, further investigation into motivational theories included the job satisfaction aspect.

Selected Theories of Motivation

Many motivation theorists attempt to explain motivation in terms of forces that cause human behavior to be energized, directed, and sustained (Hamner, 1979). Steers and Porter (1975) discussed motivation in terms of these same three components. They found that energizing forces within the individual drove him or her to behave in certain ways. Directing forces provided a goal orientation that directed the individual's behavior toward a specific goal. Additionally, the sustaining aspect of motivation depended on forces within the individual and work environment that either reinforced the intensity and direction of the individual's energy, or discouraged his or her actions and redirected his or her efforts. Hamner (1979) noted that motivational theories could be grouped according to the emphasis placed on the three components.

In the remainder of the section, the various motivational theories are examined. The theories can be grouped into three areas according to their emphasis on the three components of motivation. The first group of theories reviewed attempts to provide an understanding of what energizes a worker's behavior. The two theories discussed are Maslow's (1943) hierarchy of needs and McClelland, Atkinson, Clark, and Lowell's (1953) need theory. The second group of theories attempts to provide an understanding of what directs or channels a worker's behavior. Expectancy theory and goal-setting theory are the two theories discussed. The final group of motivational theories consists of reinforcement theory and equity theory. These theories represent attempts to provide an understanding of what sustains a worker's behavior.

Maslow's Hierarchy of Needs

In the 1940s, Maslow (1943) proposed his hierarchy of needs theory in an attempt to explain human motivation. Three major propositions of Maslow's (1943) theory are (a) all human behavior is motivated by the individual's needs, and these needs can be categorized and arranged in a hierarchy; (b) satisfied needs do not motivate, only unsatisfied needs motivate; and (c) if a dominant need goes unsatisfied, for an extended period of time, dysfunctional behaviors may result. In regard to the first proposition, Maslow (1943) postulated that all needs could be categorized into one of five levels and these levels placed in a hierarchy from lowest to highest. The first two levels were considered by Maslow (1943) to be lower order needs. These two levels consisted of physiological needs (e.g., food, water, rest) and safety needs (i.e., protection against physical and psychological threats). The next two levels, social needs (e.g., affiliation, feeling of belonging) and self-esteem (e.g., self-respect, achievement, recognition), were thought to be higher order needs. The highest level of need, one Maslow (1943) felt was rarely satisfied, was self-actualization (i.e., fulfillment of one's potential). Maslow's (1954) second proposition dealt with the satisfaction of these needs. He concluded that as a need was satisfied a need higher on the hierarchy emerged to take its place. He stated "that the gratification of any need, while putting that need to rest, allows other weaker needs that have been pushed aside to come to the foreground to press their claims. Needing never ceases. The gratification of one need creates another " (pp. 133-134). In conclusion, Maslow (1954) stated that unsatisfied dominant needs can create dysfunctional consequences. In an organization, if employees' needs go unsatisfied over an extended period of time, the employees may either leave the organization or stay and engage in coping behavior that may negatively affect the organization (e.g., absenteeism, destroying company property, insubordination). Physical and mental illness may also develop in workers whose dominant needs are left unsatisfied.

McClelland's Need Theory

McClelland (1962) also suggested that motivation is based on the fulfillment of certain individual needs. He concluded that there are three specific needs related to organizational behavior: the need for achievement, affiliation, and power. In their earlier theory, McClelland et al. (1953) were most concerned with the importance of the achievement motive, but by the mid-1970s McClelland (1975) became convinced that the need for power was equally as important to effective managerial behavior. He proposed that a motivational profile analyzing the relative strength of the three motivating factors (e.g., achievement, affiliation, power) be developed for different types of organizations and the individuals managing them.

McClelland's (1962) need for achievement does not require other people in order to be satisfied. This need is "defined as a drive to excel, to strive to succeed, to set and reach moderate standards" (McAfee & Champagne, 1987, p. 97). The need for achievement according to McClelland (1962) will determine the individual's behavior toward the tasks of the organization. He also contended that there was a direct relationship between a person's need for achievement and the person's motivation.

Satisfaction of the need for affiliation and the need for power, on the other hand, are dependent on other people. The strength of these needs will govern the individual's interpersonal relationships. The need for affiliation is similar to Maslow's (1954) social needs. This is the need for human companionship and acceptance into the group. Individual's with high need for affiliation are characterized as seeking approval of others and conforming to group norms. Of the three motivational factors, McClelland (1975) contended that managerial success is most dependent on the relative strength of the individual's need for power. He referred to this need as the desire to influence and control others. The need for power can also be related to Maslow's (1954) self-esteem needs in that it enhances the individual's status.

Expectancy Theory

In contrast to theories founded on energizing forces, the essence of expectancy theory is that a directing force to employees' behavior is provided by goals. Behavior is likened to a person's expectations that a specific task will lead to a specific outcome (Hamner, 1979). A central assumption of expectancy theorists is the belief "that because employees have different needs and values, what motivates one person may not motivate another" (McAfee & Champagne, 1987, p. 120). These theorists have stated that people determine if a goal can be attained. If the goal can be accomplished, then a decision is made by each individual concerning the rewarding or punishing outcomes associated with the task. An employee will be motivated if they know "they can accomplish a task, know that rewards are linked to task accomplishment, and they desire the rewards" (McAfee & Champagne, 1987, p. 123).

Different versions of expectancy theory exist. Research of the theory was primarily initiated during the 1960s. One of the first scholars to expand ideas of employee productivity into a formally stated expectancy theory of work and motivation was Vroom (1964). Vroom's expectancy theory involves three central concepts: valence, expectancy, and force. Valence refers to the feelings one has towards specific outcomes. These feelings are based on the assumption that employees anticipate whether having the outcome is preferred or not having the outcome is preferred. Miner (1980) explained that "the size of the valence of an outcome is dependent on the extent to which it is viewed as a means to various other outcomes and the valence of other outcomes" (p. 136).

Another aspect of Vroom's (1964) theory involves expectancy, one's belief about the degree of certainty that a specific behavior will be followed by a desired outcome. These outcome events are beyond the person's control. Miner (1980) described expectations in combination with the total valence. This combination effect between expectancy and valence motivates a person to engage in a specific course of action. Vroom (1964) further equated motivation to a directing force. This force guides one's behavior to alternative actions. The alternative actions possessing large valences predict one's actions either toward or away from a particular outcome. Each individual determines what will be rewarding or punishing; thus, these systems must change to fit each employee.

Goal-Setting Theory

Components of the goal-setting theory augment the principles described in the expectancy theory. Since the mid-1960s, the effects of goal-setting on performance have been the major focus of many studies (Locke, 1966). Bullock (1984) described goal-setting as the reference "to the setting of performance objectives either by or for an employee, with the expressed intent to manage performance" (p. 5). Hamner (1979) further explained that behavior is determined by one's values (expectancies) and intentions (goals). Every action, whether carried out or not, is initiated and guided by conscious goals.

According to Bryan and Locke (1967), a goal-setting process comes between one's task perception and one's actual performance:

> adjustment (of effort to difficulty level) requires first that the subject perceives the task, that he be conscious of the fact that there is a task to be performed and that he have some idea or knowledge of what the task requires of him. Then, depending upon the situation and the individual's perception of it in relationship to his own values, he will set himself a goal or standard in terms of which he will regulate and evaluate his performance . . . . This goal-setting procedure can vary widely in the degree to which it is conscious or subconscious, explicit or implicit . . . but once the goal is set, it is argued that effort and performance level will be regulated by and with reference to this goal. (p. 260)

Job satisfaction was also viewed as a consequence of performance by Locke (1969). Locke explained job satisfaction as being primarily a product or outcome of goal directed efforts. Locke conducted several studies to test his concepts concerning job satisfaction. From this research, Locke, Cartledge, and Kerr (1970) stated "that satisfaction with performance is a function of the degree to which one's performance achieves one's desired goal . . . goals . . . are a means to an end" (pp. 152-153). Follow-up studies on Locke's hypotheses of job satisfaction have been limited. Steers and Porter (1974), however, expressed a concern regarding the consequences of participative goal-setting versus the assigned approach used in Locke's studies. Even though research evidence is lacking, Locke (1967) attributed satisfaction with performance to the setting and attainment of goals whether they were assigned or group derived.

Another application of the notion that goal-setting is a major determinant of task performance has been found in industry. Management by objectives (MBO) is a trend comprised of three components: (a) the goal-setting itself, (b) participation in the goal setting, and (c) knowledge of the results (Bullock, 1984). In the MBO process goals are set with the employee. The MBO process, also, contains many additional components (e.g., strategic planning, compensation, administration, career planning, organizational planning, job design, coaching) (Miner,1980). Since there are so many different variables to a MBO program, research results are varied and must be interpreted judiciously.

Reinforcement Theory

The theoretical framework of the reinforcement theory is found in the writings of B. F. Skinner (1969). Skinner (1969) postulated that voluntary human behavior is determined and maintained by environmental factors. He stated that "what we feel are conditions of our bodies, most of them closely associated with behavior and with the circumstances in which we behave. We both strike and feel angry for a common reason, and that reason lies in the environment" (p. 43). Learning is a basic concept in the reinforcement theory. Hamner (1974) defined learning as "a relatively permanent change in behavior potentially that results from reinforced practice or experience" (p. 87). Since the theory is focused on learning, it is really a theory of learning rather than motivation; however, the final outcome remains the same as motivation theory's--one's performance.

Skinner (1969) explained that "the class of responses upon which a reinforcer is contingent is called an operant, to suggest that action on the environment followed by reinforcements" (p.7). Operant conditioning, therefore, is based on the relationship between the behavior and one of four types of consequences: positive reinforcers, avoidance of a negative environment, extinction, and punishment. A positive reinforcer is defined by Skinner (1953) as "a stimulus which, when added to a situation strengthens the probability of an operant response" (p. 73). Avoidance is similar to positive reinforcement except that the behavior occurs in order to avoid or reduce a negative stimuli. Extinction, on the other hand, occurs when reinforcement is withheld and the operant behavior decreases. Punishment has a similar effect to that of extinction in that it decreases the frequency of behavior by providing a negative reinforcer (Miner, 1980). The future probability of a response occurring can be increased or decreased by one of these consequences. As Skinner (1974) explained,

> when a hungry organism exhibits behavior that "produces" food, the behavior is reinforced by the consequence and is therefore more likely to recur. Behavior that "reduces" a potentially damaging condition, such as an extreme temperature, is reinforced by that consequence and therefore tends to recur on similar occasions. (pp. 39-40)

Reinforcement theorists support the premise that performance is altered by providing positive reinforcement, avoidance learning, extinction, or punishment (Hamner, 1979).

An understanding of the principles of the reinforcement theory is important for identifying and managing work behaviors of employees. Chung (1977) stated that "most behaviors in organizations are operant behaviors that are learned, controlled and altered by the consequences that follow them" (p. 61). Not only can the application of reinforcement be seen as a means for obtaining organizational goals, but the employees' evaluation of the application of these reinforcers is directly related to the employees' degree of job satisfaction (Chung, 1977).

Equity Theory

The framework for the equity theory as formalized by Adams (1963) can be found in the writings of Festinger (1954). Festinger (1954) hypothesized in his theory of social comparison that "there exists, in the human organism, a drive to evaluate his opinions and his abilities" (p. 117). He also stated that "to the extent that objective, non-social means are not available, people evaluate their opinions and abilities by comparison respectively with the opinions of others" (p. 118). In his writings, Adams (1963) postulated that individuals will compare their contributions to the organization, and the resulting rewards, to the contributions and rewards of a person in a similar position. Hamner (1979) described this comparison in terms of a ratio and the ratio as an equation:

$$\frac{\text{Outcomes}}{\text{Inputs (own)}} = \frac{\text{Outcomes}}{\text{Inputs (other's)}} \text{ (p. 49)}$$

Proponents of the equity theory suggest that job satisfaction is obtained when the individual perceives the equation as being balanced. If the individual perceives an inequality in the equation, either in a favorable or unfavorable direction, the individual is not satisfied and will act to reduce the inequality. The individual will attempt to reduce this inequality in one of five ways. One way involves the individual changing his or her inputs or outcomes. The individual may also attempt to alter the inputs or outcomes of the comparison person. Other alternatives involve the individual choosing a different comparison person or leaving the work situation. Finally, the individual may choose to consciously distort any one of the four factors of the equation (Hamner, 1979).

Adams (1963) concluded that the level of job satisfaction is determined by the perceived equality or inequality of an individual's inputs and outcomes to a comparison person's inputs and outcomes. Hamner and Harnett (1974) found job satisfaction to be greater when the individual perceives his or her outcomes as exceeding the comparison person's outcomes. According to the equity theory, an individual's feeling of job satisfaction is directly related to the individual's perception of fair treatment. This perception of fairness is derived from comparing the individual's inputs and resulting outcomes to a comparison person's inputs and outcomes (McAfee & Champagne, 1987).

The Two-Factor Theory

The two-factor theory can be grouped with reinforcement theory and equity theory because it too is focused on forces within the individual and work environment that either reinforce the intensity and direction of one's energy or discourage their actions and redirect their efforts. It is one of the more popular theories and has served as a stimulus to other researchers studying motivation and job satisfaction (Steers & Porter, 1975).

Herzberg began his work on factors that influence motivation in the mid-1950s. While compiling data for Job Attitudes: Research and Opinions, Herzberg, Mausner, Peterson, and Capwell (1957) reviewed more than 2,000 articles dealing with job attitudes, which covered approximately a 50-year time span. An analysis of these 2,000 articles led Herzberg et al. (1957) to theorize that job satisfaction was derived from two sources: intrinsic and extrinsic. Dawis and Weitzel (1975) discussed the difference between these two sources and referred to an intrinsic source as

> pertaining to the "substance" of the job (i.e., the kind of job it is , the type of work that is done, what the job entails) and an extrinsic source pertaining to the "accidents" of the job (i.e., pay, co-workers, supervision, location, etc.). (p. 6 27)

The results from this earlier work led Herzberg and associates to question the traditional job satisfaction theory of a single continuum for job satisfaction and job motivation (Herzberg et al., 1959). Unlike traditional theorists, according to McAfee and Champagne (1987), Herzberg contended "that the alternative to high job dissatisfaction is not satisfaction but rather no dissatisfaction. Similarly, he maintains that the absence of high satisfaction leads to no satisfaction, not dissatisfaction" (p. 95).

The study that was the basis for the book The Motivation to Work (Herzberg et al., 1959) had a sample population of 203 male, mid-level managers who were engineers or accountants and worked for one of nine companies in the Pittsburgh, Pennsylvania area. It was in this book that the theory of job satisfaction and job dissatisfaction was first proposed (Herzberg et al., 1959). The theory of job satisfaction and job dissatisfaction later became known as the Herzberg two-factor theory.

A major assumption of the Herzberg two-factor theory is that an individual has two sets of basic needs. Herzberg (1976) described these needs as

> one set of needs can be thought of as stemming from his animal nature--the built-in drive to avoid pain from the environment, plus all the learned drives which become conditioned to the basic biological needs. For example, hunger, a basic biological drive, makes it necessary to earn money, and then money becomes a specific drive. The other set of needs relates to that unique human characteristic, the ability to achieve and through achievement, to experience psychological growth: in the industrial setting, they are the job content. Contrariwise, the stimuli inducing pain-avoidance behavior are found in the job environment. (p. 58)

These two sets of basic needs were also described by Herzberg (1966) in light of avoidance and approach behavior. Herzberg (1966) explained:

> Man's basic needs can be diagrammed as two parallel arrows pointed in opposite directions. One arrow depicts his Animal-Adam nature, which is concerned with avoidance of pain stemming from the environment, and for man the psychological environment is the major source of this pain. The other arrow represents man's Human-Abraham nature, which is concerned with approaching self-fulfillment or psychological growth through the accomplishment of tasks. (p. 76)

According to Herzberg et al. (1959), these two sets of needs, biological needs (Animal-Adam nature) and psychological needs (Human-Abraham nature), are responsible for feelings of job dissatisfaction and job satisfaction, respectively.

Since job dissatisfaction and job satisfaction are on two separate continua, the factors that produce job dissatisfaction and job satisfaction are separate and distinct (Herzberg et al., 1959). Herzberg (1966) theorized:

> Since separate factors needed to be considered depending on whether job satisfaction or job dissatisfaction was involved, it followed that these two feelings were not the obverse of each other. Thus, the opposite of job satisfaction would not be job dissatisfaction, but rather no job satisfaction; similarly, the opposite of job dissatisfaction is no job dissatisfaction, not satisfaction with one's job. (p. 76)

Factors that affect job satisfaction were classified as satisfiers or motivators, while factors that affect job dissatisfaction were classified as dissatisfiers or hygienes. Motivator factors are seen as being intrinsic to the job. They are personal growth factors that deal with the psychological needs of the person. These factors include such items as achievement, recognition, responsibility, possibility of growth, advancement, and the work itself. Hygiene factors are related to the context of the environment or job. The main purpose of these factors is to fulfill the worker's basic biological needs. These factors include such items as company policy, administration, supervision, interpersonal relationships, status, job security, salary, and working conditions

(Herzberg et al., 1959). Herzberg et al. (1959) compared the dynamics of hygiene and motivation and found

> The dynamics of hygiene
> - The psychological basis of hygiene needs is the avoidance of pain from the environment.
> - There are infinite sources of pain in the environment.
> - Hygiene needs are cyclical in nature.
> - Hygiene needs have an escalating zero point.
> - Hygiene improvements have short-term effects.
> - There is no final answer to hygiene needs.
>
> The dynamics of motivation
> - The psychological basis of motivation is the need for personal growth.
> - There are limited sources of motivator satisfaction.
> - Motivator improvements have long-term effects.
> - Motivators are additive in nature.
> - Motivator needs have a non-escalating zero point.
> - There are answers to motivator needs. (p. 101)

The hygiene and motivator factors described by Herzberg et al. (1959) have been compared to Maslow's (1954) lower order and higher order needs respectively. Similarities between Maslow's hierarchy theory and Herzberg's two-factor theory have been noted by a number of researchers (Herzberg, 1976; Miner, 1980; Neeley, 1973; Wilkinson, Orth, & Benfari, 1986; Wolf, 1970). Wilkinson et al. (1986) viewed Herzberg's concept as a special application of Maslow's (1954) hierarchy in a highly complex industrialized society. Wolf (1970) tied the two theories together by collapsing Maslow's original need hierarchy into two levels, relating lower order needs to hygiene factors and higher order needs to motivator factors. Herzberg analyzed his hygiene and motivator factors and also compared them to Maslow's lower order and higher order needs. Herzberg (1976) stated:

> It is true that Maslow's lower-order needs can be equated in some fashion to my hygiene needs and his higher order needs in some fashion to what I call the motivation needs of man. However, that is about as much connection between the two theories as is really relevant and pertinent. (p. 317)

Similarities and extensions of Herzberg's theory have also been noted in the work of Wilkinson et al. (1986). Since the late 1950s, researchers have studied and tested the two-factor theory. Even though the theory has created much controversy, support of the two-factor theory for practicing managers has grown.

Research Related to the Two-Factor Theory

Since the proposal of the two-factor theory in the late 1950s, many researchers have attempted to prove the applicability of the theory to various fields of employment. Ewen (1964); Ronen, Lingoes, and Aranya (1979); and Berl et al. (1984) examined the applicability of the two-factor theory in the business field. Ewen (1964) studied 1,021 life insurance agents, and Ronen et al. (1979) studied 800 salesmen and 1,800 repairmen. Both found support for the two-factor theory in their research. In their study of 266 industrial salespersons, Berl et al. (1984) concluded from their findings that the two-factor theory was not applicable. Another group investigated in the business field was the mid-level manager. Cremer (1979) and Khojasteh (1983) examined the motivation of the mid-level manager and how the position related to the two-factor theory. In both studies, the two-factor theory was supported by the findings.

In the field of education, researchers have examined and tested the applicability of Herzberg's (1966) two-factor theory to both teachers and school administrators. In a study of 40 teachers selected at random from 3682 teachers in New York, Sergiovanni (1967) verified the findings of the original study by Herzberg et al. (1959). Sergiovanni reported that work itself was the focus of satisfaction factors for teachers and the conditions of work were the focus of dissatisfaction factors. Moreover, the elimination of dissatisfiers did not result in job satisfaction. McGowan (1982) also studied job satisfaction differences between teachers in Iowa public schools using Herzberg's (1966) 16 job factors. He surveyed 256 teachers from districts in which a locally negotiated contract settlement was achieved and 256 teachers from districts in which a locally negotiated contract was not achieved. He sought to determine if differences in overall job satisfaction existed between the two groups and between various subgroups of teachers based on teacher preparation, number of years in current position, years of teaching experience, age, and sex. The results of McGowan's study supported Herzberg's (1966) motivator factors as significantly and positively related to the overall job satisfaction of Iowa public school teachers. However the groups of teachers from school districts with locally negotiated contracts and those without such contracts did not differ significantly in their perception of the job factors. Taylor (1986) surveyed 827 elementary school certified staff members in five geographical areas in Florida. He examined how they perceived the influence of the two-factor theory in regard to their position and certain biographical data. His findings supported the two-factor theory but he did not find position or biographical differences. The results of Schmidt's (1976) efforts in which he examined Herzberg's (1966) two-factor theory with both teachers and administrators also added support to the two-factor theory. In his review of the research, Schmidt found support for the two-factor theory with teachers in the works of Savage (1968), Wickstrom (1971), Johnson (1967), and McGreal (1969). The principals, in Schmidt's study, reported recognition, achievement, and advancement as job satisfiers. Interpersonal relations was noted as the variable most associated with job dissatisfaction. Stefanski (1978) studied 40 high school principals to ascertain what factors principals identified as contributing to job satisfaction and job performance. Results supported the two-factor theory. Achievement, recognition, and work itself were major factors related to job satisfaction while interpersonal relations, supervision, and salary were major indicators of job dissatisfaction. Even though Herzberg's two-factor theory has been extensively studied in the field of education, more research is needed emphasizing the relationship of moderating variables (i.e., demographic characteristics) to the theory. Schmidt (1976) supported the need for further research based on the evidence from studies supporting the relationship between job satisfaction and certain moderating variables under specific conditions.

Researchers have determined that both experiences on the job and experiences off the job affect one's feelings of work satisfaction (Herzberg et al., 1959; Horton, 1987; Scarpello & Campbell, 1983; Vroom 1964). Researchers also examined the factors of one's personal characteristics and values and how these factors interact with job characteristics. The influence of particular moderating variables on Herzberg's motivator and hygiene factors is still in question. Goodson (1984) surveyed 200 Alabama elementary school teachers in order to study the congruity of Herzberg's motivator and hygiene factors to those factors identified as motivators by the teachers. Goodson's findings were consistent with Herzberg's (1966). Factors leading to teacher satisfaction were similar to those factors found for engineers and accountants. Factors leading to dissatisfaction of teachers also corresponded with those of engineers and accountants in the study by Herzberg et al. (1959). Goodson (1984) noted that there was no significant connection between the subjects' gender, race, educational degree, tenure, type of school, or grade taught and the motivator or hygiene factors; however, the variable of years of experience did have a significant effect on the motivators in the study.

Bembry (1975) studied 231 Iowa public secondary school business teachers. Bembry was seeking evidence to determine if biographical information supplied by the subjects would be a factor in their responses. Bembry, like Goodson (1984), concluded that teachers who had more teaching experience were significantly more satisfied on the job than teachers with less experience. In addition, Bembry determined that marital status, educational background, and the size of the school had no bearing on the response of the subjects.

Gender of the individual has also been found to moderate how one perceives job satisfaction. Even though Hoppock (1935) presented little data to support that gender moderated satisfaction with work, other researchers have determined that gender may affect job satisfaction. Wiggins and Lederer (1983) and Chapman and Lowther (1982) both surmised that women teachers obtained greater satisfaction from their jobs than men; although, Golding, Resnick, and Crosby (1983) found gender made no difference in the job satisfaction factors of lawyers. Therefore, the level of job satisfaction as it relates to gender as a moderating variable may vary with the profession.

Age has also been found to moderate job satisfaction. In her study of need deficiencies among teachers and principals, Nero (1985) concluded significant differences existed in both age and work experience variables. Driscoll and Shirey (1985) also examined teachers and certain moderator variables. They noted that beginning teachers were more satisfied when recognized by their supervisors, while experienced teachers obtained greater satisfaction from rewards such as pay and promotion.

The Assistant Principal

Management positions in schools have developed along with the increasing complexity of the organization of schools, the curriculum, and the society. The principal position emerged in the 1850s, but the assistant principal position did not evolve until the mid-1920s (Wells, Nelson, & Johnson, 1965). Kelly (1987) reviewed the available literature and concluded "that the assistant principal has performed basically the same kinds of duties ever since the position was created" (p. 13). Norton and Kriedard (1987), however, surveyed assistant principals in a six-state area and surmised that secondary assistant principals have increased in both numbers and duties since the 1970s. These and other researchers have identified three issues after examining the role of the assistant principal: (a) the role of the assistant principal as it is seen in regard to career development, (b) the organizational functions fulfilled by the assistant principal role within the school organization, and (c) the consequences of the assistant principal role on the incumbent (e.g., stress, satisfaction, status) (Austin & Brown, 1970; Greenfield, 1985a; Kelly, 1987; Norton & Kriedard, 1987; Panyako & Rorie, 1987; Patton, 1987).

The assistant principal position has long been seen as an intermediate step in the career ladder. Bell (1980), after studying 45 principals from urban districts, found that the most common career path was from teaching to assistant principal and then to principal. The notion that the assistant principalship is a means to an end has often been noted in the literature. Howley (1985) stated "one does not aspire to become an assistant or vice principal. One aspires to become a vice principal to become something else" (p. 88). Bates and Shank (1983) found that school officials, even assistant principals themselves, thought the position of assistant principal was an unrewarding yet a necessary step in the career ladder. Iannacone and Podorf (1984) concluded that the "majority of assistant principals seek to hold the position for only a short time, their primary aspiration being a principalship" (p. 116). In a study of 673 men and women assistant principals, Austin and Brown (1970) found that 48% of the women and only 22% of the men planned to make a career of the assistant principalship. Also, the majority of the assistant principals did not feel that they would be in the position of assistant principal for more than 5 years. The women in the study were more inclined to see the assistant principalship as a career position than were the men. This view, however, of the assistant principalship as a short-term intermediate step to the principalship is not a realistic view for the 1980s. Opportunities for principalships are few and the position of assistant principal needs to be viewed as a career position (Iannacone & Podorf, 1984).

Austin and Brown (1970) concluded that one function of the assistant principal was that of an intermediary, who also dealt with people and their relationships. The assistant principal was the operational leader of the school. One view summarized by a participant of the study was that

> in essence, the assistant held things together; he was the man who was the operational leader on an hour-to-hour basis . . . . Beneath all the trivia there is an important fact lurking---the assistant principal is the man who makes the school go . He is the one who plugs the gaps wherever they are and sees that things get done. The principal is the figurehead who can communicate upward. The assistant principal is the link with the outside. He is, incidentally, the link to the principal for most teachers. (p. 23)

Greenfield (1985b) reviewed the literature and found that the functions of the assistant principal were similar to those found by Austin and Brown (1970). He noted the assistant principal to be the primary person involved in teacher-administrator relationships and the person who handled the day-to-day school problems. Reed and Himmler (1985) proposed that the main function of the assistant principal was to establish and maintain organizational stability. This view of the assistant principal as the operational leader, establishing and maintaining organizational stability, is understandable when the type of duties they performed are examined. Rodrick (1986) listed several typical tasks of the assistant principal:

- Listening to teachers' explanations of problems they are having with students.

> - Telephoning parents to check student's attendance.
> - Hearing students describe their difficulties with teachers or students.
> - Writing notes responding to teacher's inquires.
> - Talking with teachers about their schedules.
> - Sending notes to teachers requesting information about a student's achievement, behavior, and attendance.
> - Observing the cafeteria.
> - Checking restrooms. (p. 92)

In their study, Austin and Brown (1970) divided the assistant principal's responsibilities into six categories: school management, staff personnel, community relations, student activities, curricular and instructional, and pupil personnel. They found that for the most part the assistant principals were involved in all six aspects of the school's administrative process.

Iannacone and Podorf (1984) determined that there was a high degree of stress associated with the assistant principal position. One reason for this high degree of stress was the disparity between the assistant principal's career aspirations and career opportunities. Another reason for this stress was that the assistant principal is often involved in student behavior and discipline, interacting with only the negative aspects of the school operation. Having the role of "second in charge" was also a stress factor (Iannacone & Podorf, 1984).

Austin and Brown (1970), in their career study, evaluated the degree of satisfaction assistant principals experienced in their jobs. They determined that the majority of assistant principals received more satisfaction as teachers than they did as assistant principals. For those assistant principals who advanced to the position of principal or college teacher a higher degree of satisfaction was derived from their advanced position. One of the conclusions of Austin and Brown (1970) was that "the satisfactions to be found in the assistant principalship are few and unimpressive to most who occupy this office" (p. 75). A question of status was also addressed in this study and it was determined that the assistant principal was seen as more important in the eyes of the students, teachers, clerical staff , and principal than in the assistant principal's own estimation. The principal is more likely to have a positive perception of the role of the assistant principal in the functioning of the school than is the assistant principal.

CHAPTER 3

PRESENTATION AND ANALYSIS OF DATA

The study was conducted to determine the extent to which the two-factor theory, as described by Herzberg et al. (1959), applied to the role of assistant principal in secondary schools of a large urban school district and to determine if there were differences based on certain assistant principal background factors. Eight questions gave direction to the study. The first question was designed to determine if the assistant principals' perceptions differed relative to the influence of hygiene and motivator factors on their job attitude. Questions 2 through 8 were intended to determine if certain background factors affected the assistant principals' perceptions of the influence of hygiene and motivator factors on their job attitude. Specifically, question 2 was designed to determine if there were differences in the assistant principals' perceptions of the influence of hygiene and motivator factors on their job attitude when they were categorized according to gender. Question 3 was designed to determine if there were differences in the assistant principals' perceptions of the influence of hygiene and motivator factors on their job attitude when they were categorized according to age. Question 4 was designed to determine if there were differences in the assistant principals' perceptions of the influence of hygiene and motivator factors on their job attitude when they were categorized according to their level of education. Question 5 was designed to determine if there were differences in the assistant principals' perceptions of the influence of hygiene and motion factors on their job attitude when they were categorized according to their years of experience as an assistant principal. Question 6 was designed to determine if there were differences in the assistant principals' perceptions of the influence of hygiene and motivator factors on their job attitude when they were categorized according to the grade level of school in which they worked. Question 7 was designed to determine if there were differences in the assistant principals' perceptions of the influence of hygiene and motivator factors on their job attitude when they were categorized according to the amount of time they spent in certain job tasks. Question 8 was designed to determine if there were differences in the assistant principals' perceptions of the influence of hygiene and motion factors on their job attitude when they were categorized according to whether they perceived themselves as upwardly mobile or in a career position.

From the 18 middle schools and 10 high schools in the Orange County Public School System, all assistant principals employed during the 1988-89 school year were surveyed. A total of 83 packets were sent, one to each assistant principal. Each packet included a cover letter and a two-part instrument: the general background part and the job factors part. The job factors part was used to determine how each assistant principal perceived the 16 job factors of Herzberg et al. (1959) as influencing his or her job attitude. One month after the packets had been sent, a second packet was sent to all those not responding. The second packet included a cover letter and the same two-part instrument. A total of 77 instruments was returned. One assistant principal, however, completed only the first part of the instrument making that response unusable. Therefore, the results of the study were based on the data gathered from the 76 persons who completed the two-part instrument.

The remainder of the present chapter is divided into four major sections. In the first section the characteristics of the study participants are described. In the second section the descriptive data are reported for the study participants responses to the second part of the instrument (i.e., the 16 items/factors of the Herzberg et al. theory). The third section contains the analysis of data necessary to answer the eight research questions posed. Finally, the fourth section includes a post hoc analysis which was determined to be important after having analyzed the data in relation to the research questions.

Characteristics of the Study Participants

Part 1 of the survey instrument contained items about the assistant principals and their work situations. The items related to gender, age, highest degree held, years of experience as an assistant principal, grade level of the school where the assistant principal worked, time spent in specific task areas, and the assistant principal's perception of his or her chances for promotion. Contained in Table 1 is a distribution of the responses provided by the 76 participating assistant principals.

As can be seen from Table 1, over 76% of the respondents were male and almost 99% were 33 years of age or older. All held graduate degrees, with over 77% reporting the masters as the highest degree. In regard to years of experience as an assistant principal, there was a bimodal distribution; over 38% were in their first 5 years of experience as an

Table 1

Characteristics of the Study Participants

Characteristics	Frequency	Percent
Gender		
Male	58	76.3
Female	18	23.7
Total	76	100.0
Age		
21-32	1	1.3
33-40	17	22.4
41-48	25	32.9
49-56	20	26.3
57-over	13	17.1
Total	76	100.0
Degree		
Bachelors	0	0.0
Masters	59	77.6
Ed.S./6th year	13	17.1
Doctorate	4	5.3
Total	76	100.0
Years Experience as an Assistant Principal		
01-05	29	38.1
06-10	6	7.9
11-15	5	6.6
16-20	19	25.0
21-over	17	22.4
Total	76	100.0

Table 1--continued

Characteristics	Frequency	Percent
Grade Level of School where Employed		
Grades 6 - 8	34	44.7
Grades 9 - 12	42	55.3
Total	76	100.0
Time Spent in Task Areas		
Curriculum and Instruction		
0- 25%	48	63.1
26- 50%	12	15.8
51- 75%	12	15.8
76-100%	4	5.3
Total	76	100.0
School Management		
0- 25%	66	86.9
26- 50%	7	9.2
51- 75%	3	3.9
76-100%	0	0.0
Total	76	100.0
Staff Personnel		
0- 25%	71	93.4
26- 50%	5	6.6
51- 75%	0	0.0
76-100%	0	0.0
Total	76	100.0

Table 1--continued

Characteristics	Frequency	Percent
Time Spent in Task Areas		
Pupil Personnel		
0- 25%	37	48.7
26- 50%	21	27.6
51- 75%	13	17.1
76-100%	5	6.6
Total	76	100.0
Student Activities		
0- 25%	67	88.2
26- 50%	8	10.5
51- 75%	1	1.3
76-100%	0	0.0
Total	76	100.0
Community Relations		
0- 25%	76	100.0
26- 50%	0	0.0
51- 75%	0	0.0
76-100%	0	0.0
Total	76	100.0
Chances for Advancement within 5 Years		
Almost no chance	53	69.7
Almost certain chance	23	30.3
Total	76	100.0

assistant principal yet over 47% had 16 or more years of experience as an assistant principal. Further, as shown in the table, 34 of the respondents were employed in schools encompassing grades 6-8 and 42 were employed in schools encompassing grades 9-12. In terms of time spent in the six task areas specified, it can be seen that over 85% of the assistant principals spent less than 26% of their time on school management, staff personnel, student activities, and community relations with 100% of the sample reporting they spent less than 26% of their time on community relations. In the area of curriculum and instruction, there was a somewhat greater distribution with over 63% of the assistant principals reporting they spent less than 26% of their time in the area yet over 21% reported they spent over 50% of their time in the curriculum and instruction area. Also, in the area of pupil personnel there was considerable distribution in that just less than 50% reported they spent less than 26% of their time in this area while almost 45% of them spent between 25% and 76% of their time in this area. As can be seen from Table 1, when asked what they thought their chances of advancement were within the next 5 years over two-thirds thought they had no chance of advancement and just slightly over 30% gave themselves a certain chance of advancement within a 5-year period. It should be noted that this reaffirms the conviction stated in Chapter 1 that there would be a large group of assistant principals with whom top-level management had to either continue to motivate while they were in the position or they had to seek employment elsewhere.

Perceptions of the Study Participants About the Influence of the Hygiene and Motivator Factors on Their Job Attitude

Shown in Table 2 are the responses of the study participants to the 16 items in the second part of the instrument. Each item related to one of the16 job factors of Herzberg et. al. (1959). A 1-7 Likert scale was used for each of the respondents to indicate the relative influence of the item/factor to his or her job attitude. A 1 represented no contribution toward a positive job attitude, and a 7 represented a major contribution toward a positive job attitude.

As can be seen from Table 2, over 75% of the responses to the 16 items/factors were in the 4-7 range. For 10 of the items/factors, 5 hygiene items/factors and 5 motivator items/factors, the 4-7 range accounted for over 90% of the responses. These 10 items/factors were interpersonal relations with subordinates, supervision, interpersonal relations with colleagues, interpersonal relations with supervisors, status, achievement, responsibility, recognition, possibility of growth, and work itself. For 5 of the items/factors, 3 hygiene items/factors and 2 motivator items/factors, a 7 on the scale accounted for more than 30% of the responses. This indicated that the study participants perceived each of these five areas as making a major contribution toward a positive job attitude. These 5 items/factors were interpersonal relations with subordinates, supervision, interpersonal relations with supervisors, achievement, and responsibility. There were 4 items/factors to which greater than 10% of the study participants responded with a 1 or 2. These 4 items/factors were personal life, salary, job security, and advancement.

Table 2

Distribution of the Responses of the Study Participants to Each of the Hygiene and Motivator Items/Factors

Items/Factors	Responses															
	1*		2		3		4		5		6		7		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Hygiene Items/Factors																
2. Interpersonal Relations with Subordinates	2	2.6	0	0.0	0	0.0	7	9.2	12	15.8	31	40.8	24	31.6	76	100
3. School Policy and Administration	2	2.6	1	1.3	8	10.5	18	23.7	13	17.1	18	23.7	16	21.1	76	100
4. Personal Life	5	6.6	5	6.6	8	10.5	22	28.9	14	18.4	16	21.1	6	7.9	76	100
6. Supervision	0	0.0	3	3.9	3	3.9	2	2.6	8	10.5	25	32.9	35	46.2	76	100
8. Interpersonal Relations with Colleagues	0	0.0	1	1.3	1	1.3	7	09.2	17	22.4	32	42.1	18	23.7	76	100
11. Salary	3	3.9	6	7.9	1	1.3	18	23.7	18	23.7	17	22.4	13	17.1	76	100

Table 2--continued

Items/Factors	Responses															
	1		2		3		4		5		6		7		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Hygiene Items/Factors																
12. Interpersonal Relations with Supervisors	2	2.6	2	2.6	2	2.6	8	10.5	12	15.8	26	34.3	24	31.6	76	100
13. Working Conditions	0	0.0	2	2.6	7	9.2	16	21.1	19	25.0	19	25.0	13	17.1	76	100
15. Status	1	1.3	4	5.3	1	1.3	15	19.7	14	18.4	26	34.3	15	19.7	76	100
16. Job Security	4	5.3	4	5.3	4	5.3	9	11.8	9	11.8	28	36.8	18	23.7	76	100
Motivator Items/Factors																
1. Achievement	2	2.6	0	0.0	1	1.3	3	3.9	5	6.6	34	44.8	31	40.8	76	100

Table 2--continued

Items/Factors	Responses															
	1		2		3		4		5		6		7		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Motivator Items/Factors																
5. Responsibility	0	0.0	1	1.3	2	02.6	8	10.5	10	13.2	31	40.8	24	31.6	76	100
7. Recognition	1	1.3	1	1.3	4	05.3	9	11.8	23	30.3	20	26.3	18	23.7	76	100
9. Possibility of Growth	2	2.6	3	3.9	1	01.3	12	15.8	13	17.1	26	34.3	19	25.0	76	100
10. Advancement	6	7.9	3	3.9	7	09.2	17	22.4	9	11.8	17	22.4	17	22.4	76	100
14. Work Itself	2	2.6	2	2.6	1	01.3	5	6.6	17	22.4	29	38.2	20	26.3	76	100

* Indicates the number and percent of the study participants responding with a "1" to the 1-7 scale with a "1" meaning that the item/factor had no influence on job attitude.

Based on the responses from the 76 participating assistant principals the mean for each of the 10 hygiene items/factors and 6 motivator items/factors was calculated for the assistant principals as a total group and for each of the subgroups of assistant principals when classified according to the subgroups used for research of questions 2-8. Also, the overall mean item score for the hygiene items/factors and the overall mean item score for the motivator items/factors was calculated for the total group and each subgroup. The means are found in Tables 3 and 4.

As can be seen from Table 3, which represents the study participants' perceptions of the 10 hygiene items/factors, over 91% of the overall means were in the 5.06-5.71 range. Two of the task area subgroups had overall means below 5.06. These were curriculum and instruction (26-51%) and pupil personnel (26-50%) with overall means of 4.95 and 4.90 respectively. Further, one of the task area subgroups had an overall mean higher than 5.71; it was student activities (51-75%) with an overall mean of 6.20. When examining the means of the study participants as a total group it can be seen that 7 of the 10 hygiene items/factors had means in the 5.07-5.84 range. Personal life and salary had means of 4.41 and 4.91 respectively. Supervision was the only hygiene item/factor that had a mean greater than 6.00 suggesting that the study participants perceived it as making a strong contribution toward a positive attitude. Personal life was the hygiene factor with the lowest mean (4.41) and the widest range (1-7) of responses. However, even with the wide range of responses, over 63% of the responses were in the 4.00 to 4.50 range.

As can be seen from Table 4, which represents the study participants' perceptions of the six motivator items/factors, over 94% of the overall

Table 3

Distribution of the Response Means to Each of the Hygiene Items/Factors for the Total Group of Study Participants and Selected Subgroups

Group and Subgroups	Item/Factor Number *										Overall Mean
	2	3	4	6	8	11	12	13	15	16	
Total Group	5.84	5.07	4.41	6.03	5.74	4.91	5.63	5.12	5.30	5.25	5.33
Gender Subgroups											
Male	6.02	5.17	4.41	6.10	5.81	4.95	5.64	5.17	5.14	5.33	5.40
Female	5.28	4.72	4.39	5.78	5.50	4.78	5.61	4.94	4.94	5.00	5.09
Age Subgroups											
21-32	7.00	4.00	1.00	7.00	7.00	5.00	6.00	3.00	5.00	6.00	5.10
33-40	5.82	4.77	4.00	6.12	5.59	5.12	5.94	5.24	5.24	5.12	5.30
41-48	5.96	5.52	4.92	6.16	5.92	4.64	5.80	5.44	5.36	4.84	5.46
49-56	5.65	4.85	4.40	5.60	5.60	4.85	5.10	4.85	4.80	5.60	5.13
57-over	5.85	5.00	4.23	6.23	5.69	5.23	5.69	4.92	6.08	5.62	5.45
Degree Subgroups											
Bachelors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Masters	5.76	5.07	4.42	6.10	5.76	5.00	5.76	5.09	5.39	5.37	5.37
Ed.S./6th year	6.46	5.00	3.85	5.77	5.62	4.46	5.00	5.31	5.00	4.77	5.12
Doctorate	5.00	5.25	6.00	5.75	5.75	5.00	5.75	5.00	5.00	5.00	5.35

Table 3--continued

Group and Subgroups	Item/Factor Number										Overall Mean
	2	3	4	6	8	11	12	13	15	16	
Years of Experience as Assistant Principal Subgroups											
01-05	6.03	5.03	4.14	6.21	5.90	4.90	5.90	5.10	5.28	4.93	5.34
06-10	5.83	5.67	5.17	6.67	5.50	4.50	6.50	5.50	6.33	4.83	5.65
11-15	6.00	5.20	3.60	6.00	5.80	5.20	6.20	5.20	5.20	6.00	5.44
16-20	5.47	5.16	4.00	5.74	5.32	4.63	5.05	4.84	5.00	5.47	5.07
21-over	5.88	4.77	5.29	5.82	6.00	5.29	5.35	5.29	5.35	5.47	5.45
Grade Level of School Where Employed Subgroups											
6-8	6.06	5.15	4.32	6.24	5.82	5.21	5.79	5.35	5.50	5.62	5.51
9-12	5.67	5.00	4.48	5.86	5.67	4.67	5.50	4.93	5.14	4.95	5.19
Task Area Subgroups											
Curriculum and Instruction											
00%-25%	5.94	5.29	4.46	5.98	5.77	4.85	5.73	5.10	5.25	5.46	5.38
26%-50%	5.33	4.33	4.33	5.67	5.42	4.50	5.33	5.00	5.00	4.58	4.95
51%-75%	6.08	5.00	4.50	6.50	6.08	5.50	5.83	5.17	5.58	4.92	5.52
76%-100%	5.50	4.75	3.75	6.25	5.25	5.00	4.75	5.50	6.00	5.75	5.25

Table 3--continued

Group and Subgroups	Item/Factor Number 2	3	4	6	8	11	12	13	15	16	Overall Mean
Task Area Subgroups											
School Management											
00%-25%	5.83	5.08	4.44	6.05	5.73	4.88	5.59	5.14	5.33	5.26	5.33
26%-50%	5.71	5.00	4.00	5.86	5.71	5.14	5.86	4.71	5.57	5.00	5.26
51%-75%	6.33	5.00	4.67	6.00	6.00	5.00	6.00	5.67	4.00	5.67	5.43
76%-100%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Staff Personnel											
00%-25%	5.82	5.10	4.42	6.10	5.72	4.97	5.69	5.10	5.25	5.31	5.35
26%-50%	6.20	4.60	4.20	5.00	6.00	4.00	4.80	5.40	6.00	4.40	5.06
51%-75%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76%-100%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pupil Personnel											
00%-25%	5.87	5.16	4.27	6.19	5.76	5.16	5.70	5.22	5.54	5.46	5.43
26%-50%	5.57	4.48	4.29	5.52	5.38	4.57	4.95	4.91	4.67	4.62	4.90
51%-75%	6.08	5.85	5.15	6.23	6.15	4.85	6.23	5.46	5.46	5.62	5.71
76%-100%	6.20	4.80	4.00	6.40	6.00	4.60	6.40	4.40	5.80	5.40	5.40

Table 3--continued

Group and Subgroup	Item/Factor Number 2	3	4	6	8	11	12	13	15	16	Overall Mean
Task Area Subgroups											
Student Activities											
00%-25%	5.82	5.03	4.45	6.00	5.69	4.94	5.63	5.09	5.34	5.18	5.32
26%-50%	5.88	5.13	3.75	6.13	6.00	4.63	5.50	5.50	5.13	5.63	5.33
51%-75%	7.00	7.00	7.00	7.00	7.00	5.00	7.00	4.00	4.00	7.00	6.20
76%-100%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Community Relations											
00%-25%	5.84	5.07	4.41	6.03	5.74	4.91	5.63	5.12	5.30	5.25	5.33
26%-50%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51%-75%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76%-100%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Perception of Chance for Advancement Subgroups											
No Chance	5.85	5.06	4.34	6.08	5.68	5.04	5.59	5.09	5.28	5.28	5.33
Certain Chance	5.83	5.09	4.57	5.91	5.87	4.61	5.74	5.17	5.35	5.17	5.33

* See Part II of the survey instrument in the Appendix for a description of the item/factor.

Table 4

Distribution of the Response Means to Each of the Motivator Items/Factors for the Total Group of Study Participants and Selected Subgroups

Group and Subgroups	Item/Factor Number * 1	5	7	9	10	14	Overall Mean
Total Group	6.09	5.84	5.42	5.43	4.83	5.63	5.54
Gender Subgroups							
Male	6.21	5.93	5.50	5.41	4.60	5.71	5.56
Female	5.72	5.56	5.17	5.50	5.56	5.39	5.48
Age Subgroups							
21-32	6.00	5.00	6.00	7.00	7.00	4.00	5.83
33-40	6.12	5.59	5.53	5.77	5.24	5.47	5.62
41-48	6.28	6.00	5.32	5.60	5.40	5.80	5.73
49-56	5.70	5.90	5.40	5.00	3.95	5.30	5.21
57-over	6.31	5.85	5.46	5.23	4.39	6.15	5.56
Degree Subgroups							
Bachelors	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Masters	6.09	5.78	5.42	5.44	4.93	5.59	5.54
Ed.S./6th year	6.23	5.85	5.39	5.54	4.31	5.85	5.53
Doctorate	5.75	6.75	5.50	5.00	5.00	5.50	5.58

Table 4--continued

Group and Subgroups	Item/Factor Number 1	5	7	9	10	14	Overall Mean
Years of Experience as Assistant Principal Subgroups							
01-05	6.35	5.66	5.35	5.97	5.55	5.52	5.73
06-10	6.17	6.33	6.00	6.00	5.17	6.17	5.97
11-15	7.00	5.80	5.20	5.40	4.40	5.40	5.53
16-20	5.63	5.79	5.32	4.84	4.37	5.63	5.26
21-over	5.88	6.06	5.53	5.00	4.12	5.71	5.38
Grade Level of School Where Employed Subgroups							
6-8	6.18	5.91	5.50	5.59	5.18	5.88	5.71
9-12	6.02	5.79	5.36	5.31	4.55	5.43	5.41
Task Area Subgroups							
Curriculum and Instruction							
00%-25%	6.06	5.79	5.33	5.27	4.50	5.58	5.42
26%-50%	5.67	5.58	5.58	5.42	5.25	5.17	5.44
51%-75%	6.58	6.17	5.50	6.08	5.50	6.33	6.03
76%-100%	6.25	6.25	5.75	5.50	5.50	5.50	5.79

Table 4--continued

Group and Subgroups	Item/Factor Number						Overall Mean
	1	5	7	9	10	14	
Task Area Subgroups							
School Management							
00%-25%	6.09	5.92	5.42	5.44	4.91	5.70	5.58
26%-50%	6.29	5.43	5.43	5.57	4.57	5.14	5.41
51%-75%	5.67	5.00	5.33	5.00	3.67	5.33	5.00
76%-100%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Staff Personnel							
00%-25%	6.09	5.86	5.47	5.42	4.94	5.59	5.56
26%-50%	6.20	5.60	4.80	5.60	3.20	6.20	5.27
51%-75%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76%-100%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pupil Personnel							
00%-25%	6.32	6.05	5.38	5.76	5.11	6.08	5.78
26%-50%	5.52	5.19	5.38	5.29	4.67	4.57	5.10
51%-75%	6.31	6.15	5.62	5.23	4.62	6.00	5.65
76%-100%	6.20	6.20	5.40	4.20	4.00	5.80	5.30

Table 4--continued

Group and Subgroups	Item/Factor Number 1	5	7	9	10	14	Overall Mean
Task Area Subgroups							
Student Activities							
00%-25%	6.10	5.87	5.49	5.48	4.96	5.66	5.59
26%-50%	5.88	5.75	5.13	4.88	3.50	5.25	5.06
51%-75%	7.00	5.00	3.00	7.00	7.00	7.00	6.00
76%-100%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Community Relations							
00%-25%	6.09	5.84	5.42	5.43	4.83	5.63	5.54
26%-50%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51%-75%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76%-100%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Perception of Chance for Advancement Subgroups							
No Chance	6.09	5.96	5.49	5.32	4.57	5.66	5.52
Certain Chance	6.09	5.57	5.26	5.70	5.44	5.57	5.60

* See Part II of the survey instrument in the Appendix for a description of the item/factor.

means were in the 5.00-5.97 range. Two of the task area subgroups had an overall mean higher than 5.97; these were curriculum and instruction (51-75%) and student activities (51-75%) with overall means of 6.03 and 6.00 respectively. When examining the means of the study participants as a total group it can be seen that four of the six hygiene items/factors had means between 5.42 and 5.84. The two items/factors not in this range were advancement with a mean of 4.83 and achievement with a mean of 6.09. For the experience as an assistant principal subgroups, the means for advancement decreased as the years of experience increased. Also, in three of the six task areas as the percentage of time spent in the task area increased the means for advancement decreased. Only in the task area of curriculum and instruction did the means for advancement increase as the time spent in the task area increased.

Analysis of Data for Questions 1 through 8

Question One

Question 1 was designed to determine if there were differences in how the total group of assistant principals perceived the influence of the hygiene factors and motivator factors on their job attitude. A correlated t test was performed to determine if the difference between the overall mean of the hygiene items/factors (5.33) and the overall mean of the motivator items/factors (5.54) was statistically significant ($p<.05$). The results from the correlated t test are presented in Table 5 . The t value was 2.79, representing a probability of 0.007; therefore, there was statistical support at the preset level of probability for the notion that the assistant principals perceived hygiene factors and motivator factors differently. This is consistent with Herzberg's two-factor theory.

Table 5

Summary of the Correlated t Test: Hygiene Items/Factors Compared to Motivator Items/Factors for Total Group

Variable	Mean	SD	df	t	p
Hygiene	5.33	0.899	75	2.79	0.007
Motivator	5.54	0.937			

Question Two

Question 2 was designed to determine if there were differences between males and females in regard to their perceptions of the influence of hygiene factors and motivator factors on their job attitude. Two ANOVAs were conducted. The first analysis was to determine if there was a difference in how males and females perceived the influence of the hygiene factors. The overall mean for the males was 5.40, and for the females the overall mean was 5.09 (see Table 3). The results from the ANOVA are presented in Table 6. The F value was 1.619, representing a probability of 0.207; therefore, there is no statistical support ($p<.05$) for the proposition that the male and female assistant principals perceived the influence of the hygiene factors differently.

The second ANOVA was performed to determine if there was a difference in how males and females perceived the influence of the

Table 6

Summary of the Analysis of Variance for the Hygiene Items/Factors: Gender Subgroup Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	1.297	1	1.297	1.619	0.207
Residual	59.279	74	0.801		
Total	60.576	75	0.808		

motivator items/factors. The overall mean for the males was 5.56, and for females the overall mean was 5.48 (see Table 4). The results from the ANOVA are presented in Table 7. The F value was 0.096, representing a probability of 0.757; therefore, there is no statistical support ($p<.05$) for the hypothesis that the male and female assistant principals perceived the influence of the motivator factors differently.

Table 7

Summary of the Analysis of Variance for the Motivator Items/Factors: Gender Subgroups Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	0.085	1	0.085	0.096	0.757
Residual	65.810	74	0.889		
Total	65.896	75	0.879		

Question Three

Question 3 was designed to determine if there were differences in the assistant principals' perceptions of the influence of hygiene factors and motivator factors on their job attitude when they were categorized according to age. Two ANOVAs were performed. The first was computed to determine if there was a difference in how different age groups perceived the influence of the hygiene factors. The overall mean for the 21-32 subgroup was 5.10, for the 33-40 subgroup the overall mean was 5.30, for the 41-48 subgroup the overall mean was 5.46, for the 49-56 subgroup the overall mean was 5.13, and for the 57 years and over subgroup the overall mean was 5.45 (see Table 3). The results from the ANOVA are presented in Table 8. The F value was 0.442, representing a probability of 0.778; therefore, there is no statistical support ($p<.05$) for the belief that age made a difference in how the assistant principals perceived the hygiene factors.

Table 8

Summary of the Analysis of Variance for the Hygiene Items/Factors: Age Subgroups Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	1.471	4	0.368	0.442	0.778
Residual	59.105	71	0.832		
Total	60.576	75	0.808		

The second ANOVA was calculated to determine if there was a difference in how the age groups perceived the influence of the motivator factors. The overall mean for the 21-32 subgroup was 5.83, for the 33-40 subgroup the overall mean was 5.62, for the 41-48 subgroup the overall mean was 5.73, for the 49-56 subgroup the overall mean was 5.21, and for the 57 years and over subgroup the overall mean was 5.56 (see Table 4). The results from the ANOVA are presented in Table 9. The F value was 0.945, representing a probability of 0.443; therefore, there is no statistical support ($p<.05$) for the proposition that age made a difference in how the assistant principals perceived the influence of the motivator factors.

Table 9

Summary of the Analysis of Variance for the Motivator Items/Factors: Age Subgroups Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	3.330	4	0.833	0.945	0.443
Residual	62.896	71	0.881		
Total	65.896	75	0.879		

Question Four

Question 4 was designed to determine if there were differences in the assistant principals' perceptions of the influence of hygiene factors and motivator factors on their job attitude when they were categorized according to the degree they held. Two ANOVAs were calculated. The first was performed to determine if assistant principals with different degrees perceived the influence of the hygiene factors differently. For the master's subgroup the overall mean was 5.37, for the Ed.S/6th year subgroup the overall mean was 5.12, and for the doctorate subgroup the overall mean was 5.35 (see Table 3). The results from the ANOVA are presented in Table 10. The F value was 0.406, representing a probability of 0.668; therefore, there is no statistical support ($p<.05$) for the proposition that the assistant principals' degrees made a difference in how they perceived the influence of the hygiene factors.

Table 10

Summary of the Analysis of Variance for the Hygiene Items/Factors: Degree Subgroups Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	0.667	2	0.333	0.406	0.668
Residual	59.910	73	0.821		
Total	60.576	75	0.808		

The second ANOVA was computed to determine if assistant principals with different degrees perceived the influence of the motivator factors differently. The results from the ANOVA are presented in Table 11. For the master's subgroup the overall mean was 5.54, for the Ed.S/6th year subgroup the overall mean was 5.53, and for the doctorate subgroup the overall mean was 5.58 (see Table 4). The F value was 0.006, representing a probability of 0.994; therefore, there is no statistical support (p<.05) for the belief that the degrees held by the assistant principals made a difference in how they perceived the influence of the motivator factors.

Table 11

Summary of the Analysis of Variance for the Motivator Items/Factors: Degree Subgroups Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	0.010	2	0.005	0.006	0.994
Residual	65.886	73	0.903		
Total	65.896	75	0.879		

Question Five

Question 5 was designed to determine if there were differences in the assistant principals' perceptions of the influence of hygiene factors and motivator factors on their job attitude when they were categorized according to their years of experience as assistant principals. Two ANOVAs were calculated. The first was performed to determine if assistant principals with varying years of experience perceived the influence of the hygiene factors differently. The results from the ANOVA are presented in Table 12. The overall mean for the 1-5 years of experience as assistant principal subgroup was 5.34, for the 6-10 subgroup the overall mean was 5.65, for the 11-15 subgroup the overall mean was 5.44, for the 16-20 subgroup the overall mean was 5.07, and for the 21 years and over subgroup the overall mean was 5.45 (see Table 3). The F value was 0.680, representing a probability of 0.608; therefore, there is no statistical support (p<.05) for the hypothesis that the assistant principals' years of experience made a difference in how they perceived the influence of the hygiene factors.

Table 12

Summary of the Analysis of Variance for the Hygiene Items/Factors: Experience as an Assistant Principal Subgroups Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	2.236	4	0.559	0.680	0.608
Residual	58.341	71	0.822		
Total	60.576	75	0.808		

The second ANOVA was computed to determine if assistant principals with varying years of experience as an assistant principal perceived the influence of the motivator factors differently. The results from the ANOVA are presented in Table 13. The overall mean for the 1-5 years of experience as assistant principal subgroup was 5.73, for the 6-10 subgroup the overall mean was 5.97, for the 11-15 subgroup the overall mean was 5.53, for the 16-20 subgroup the overall mean was 5.26, and for the 21 years and over subgroup the overall mean was 5.38 (see Table 4). The F value was 1.161, representing a probability of 0.335; therefore, there is no statistical support (p<.05) for the proposition that the assistant principals' years of experience made a difference in how they perceived the influence of the motivator factors.

Table 13

Summary of the Analysis of Variance for the Motivator Items/Factors: Experience as an Assistant Principal Subgroups Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	4.045	4	1.011	1.161	0.335
Residual	61.851	71	0.871		
Total	65.896	75	0.879		

Question Six

Question 6 was designed to determine if there were differences in the assistant principals' perceptions of the influence of hygiene factors and motivator factors on their job attitude when they were categorized according to the grade level of the school in which they worked. Two ANOVAs were calculated. The first was computed to determine if assistant principals working in schools of different grade levels perceived the influence of the hygiene factors differently. The results from the ANOVA are presented in Table 14. The overall mean for the subgroup employed in 6-8 schools was 5.51, and for the 9-12 schools subgroup the overall mean was 5.19 (see Table 3). The F value was 2.430, representing a probability of 0.123; therefore, there is no statistical support (p<.05) for the hypothesis that the grade level of the school made a difference in how the assistant principals perceived the influence of the hygiene factors.

Table 14

Summary of the Analysis of Variance for the Hygiene Items/Factors: Grade Level of School where Employed Subgroups Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	1.926	1	1.926	2.430	0.123
Residual	58.650	74	0.793		
Total	60.576	75	0.808		

The second ANOVA was performed to determine if assistant principals working in school of different grade levels perceived the influence of the motivator factors differently. The results from that ANOVA are presented in Table 15. The overall mean for the subgroup employed in 6-8 schools was 5.71, and for the subgroup employed in 9-12 schools the overall mean was 5.41 (see Table 4). The F value was 1.911, representing a probability of 0.171; therefore, there is no statistical support (p<.05) for the belief that the grade level of the school where employed made a difference in how the assistant principals perceived the influence of the motivator factors.

Table 15

Summary of the Analysis of Variance for the Motivator Items/Factors: Grade Level of School where Employed Subgroups Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	1.659	1	1.659	1.911	0.171
Residual	64.237	74	0.868		
Total	65.896	75	0.879		

Question Seven

Question 7 was designed to determine if there were differences in the assistant principals' perceptions of the influence of hygiene factors and motivator factors on their job attitude when they were categorized according to the percentage of time they spent on certain job task areas. Twelve ANOVAs were planned; however, all of the assistant principals reported spending no more than 25% of their time in the community relations task area. This meant that all the assistant principals were classified into one group, eliminating the need to compute the two ANOVAs for this task area. Therefore, 10 ANOVAs were computed.

The first ANOVA was performed to determine if assistant principals who spent different percentages of their time on curriculum and instruction tasks perceived the influence of the hygiene factors differently. The results from the ANOVA are presented in Table 16. The overall mean for subgroup spending 0-25% of the time on curriculum and instruction was 5.38, for the 26-50% subgroup the overall mean was 4.95, for the 51-75% subgroup the overall mean was 5.52, and for the 76-100% subgroup the overall mean was 5.25 (see Table 3). The F value was 0.953, representing a probability of 0.420; therefore, there is no statistical support (p<.05) for the proposition that the assistant principals who spent different percentages of time on curriculum and instruction tasks perceived the influence of the hygiene factors differently.

Table 16

Summary of the Analysis of Variance for the Hygiene Items/Factors: Subgroups Based on Time Spent in Curriculum and Instruction Task Area Compared

Source of Variation	Sum of Squares	df	Mean Squares	F	p
Main Effects	2.313	3	0.771	0.953	0.420
Residual	58.263	72	0.809		
Total	60.576	75	0.808		

The second ANOVA was computed to determine if assistant principals who spent different percentages of their time on curriculum and instruction perceived the influence of the motivator factors differently. The results from the ANOVA are presented in Table 17. The overall mean for the subgroup spending 0-25% of the time on curriculum and instruction tasks was 5.42, for the 26-50% subgroup the overall mean was 5.44, for the 51-75% subgroup the overall mean was 6.03, for the 76-100% subgroup the overall mean was 5.79 (see Table 4). The F value was 1.497, representing a probability of 0.223; therefore, there is no statistical support ($p<.05$) for the hypothesis that the assistant principals who spent different percentages of time on curriculum and instruction tasks perceived the influence of the motivator factors differently.

Table 17

Summary of the Analysis of Variance for the Motivator Items/Factors: Subgroups Based on Time Spent in Curriculum and Instruction Task Area Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	3.868	3	1.289	1.497	0.223
Residual	62.028	72	0.861		
Total	65.896	75	0.879		

The third ANOVA was calculated to determine if assistant principals who spent different percentages of their time on school management perceived the influence of the hygiene factors differently. The results from the ANOVA are presented in Table 18. The overall mean for the subgroup spending 0-25% of the time in school management tasks was 5.33, for the 26-50% subgroup the overall mean was 5.26, and for the 51-75% subgroup the overall mean was 5.43 (see Table 3). (No respondent reported spending more than 75% of his/her time in this task area.) The F value was 0.042, representing a probability of 0.959; therefore, there is no statistical support ($p<.05$) for the belief that the assistant principals who spent different percentages of time on school management perceived the influence of the hygiene factors differently.

Table 18

Summary of the Analysis of Variance for the Hygiene Items/Factors: Subgroups Based on Time Spent in School Management Task Area Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	0.069	2	0.035	0.042	0.959
Residual	60.507	73	0.829		
Total	60.576	75	0.808		

The fourth ANOVA was computed to determine if assistant principals who spent different percentages of their time on school management perceived the influence of the motivator factors differently. The results from the ANOVA are presented in Table 19. The overall mean for the subgroup spending 0-25% of the time in school management was 5.58, for the 26-50% subgroup the overall mean was 5.41, and for the 51-75% subgroup the overall mean was 5.00 (see Table 4). (No respondent reported spending more than 75% of his/her time in this task area.) The F value was 0.627, representing a probability of 0.537; therefore, there is no statistical support ($p<.05$) for the proposition that the assistant principals who spent different percentages of time on school management perceived the influence of the motivator factors differently.

Table 19

Summary of the Analysis of Variance for the Motivator Items/Factors: Subgroups Based on Time Spent in School Management Task Area Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	1.113	2	0.556	0.627	0.537
Residual	64.783	73	0.887		
Total	65.896	75	0.879		

The fifth ANOVA was performed to determine if assistant principals who spent different percentages of the time on staff personnel perceived the influence of the hygiene factors differently. The results from the ANOVA are presented in Table 20. The overall mean for the subgroup spending 0-25% of the time in staff personnel was 5.35, and for the 26-50% subgroup the overall mean was 5.06 (see Table 3). (No respondent reported spending more than 50% of his/her time in this task area.) The F value was 0.476, representing a probability of 0.492; therefore, there is no statistical support (p<.05) for the hypothesis that the assistant principals who spent different percentages of time on staff personnel perceived the influence of the hygiene factors differently.

The sixth ANOVA was calculated to determine if assistant principals who spent different percentages of their time on staff personnel perceived the influence of the motivator factors differently. The results from the ANOVA are presented in Table 21. The overall mean for the

Table 20

Summary of the Analysis of Variance foe the Hygiene Items/Factors: Subgroups Based on Time Spent in Staff Personnel Task Area Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	0.387	1	0.387	0.476	0.492
Residual	60.189	74	0.813		
Total	60.576	75	0.808		

Table 21

Summary of the Analysis of Variance for the Motivator Items/Factors: Subgroups Based on Time Spent in Staff Personnel Task Area Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	0.405	1	0.405	0.457	0.501
Residual	65.491	74	0.885		
Total	65.896	75	0.879		

subgroup spending 0-25% of the time in staff personnel was 5.56, and for the 26-50% subgroup the overall mean was 5.27 (see Table 4). (No respondent reported spending more than 50% of his/her time in this task area.) The F value was 0.457, representing a probability of 0.501; therefore, there is no statistical support ($p<.05$) for the proposition that the assistant principals who spent different percentages of time on staff personnel perceived the influence of the motivator factors differently.

The seventh ANOVA was computed to determine if assistant principals who spent different percentages of their time on pupil personnel perceived the influence of the hygiene factors differently. The results from the ANOVA are presented in Table 22. The overall mean for the subgroup spending 0-25% of the time in pupil personnel was 5.43, for the 26-50% subgroup the overall mean was 4.90, for the 51-75% subgroup the overall mean was 5.71, and for the 76-100% subgroup the overall mean was 5.40 (see Table 3). The F value was 2.754, representing a probability 0.049; therefore, there is statistical support ($p<.05$) for the hypothesis that the assistant principals who spent different percentages of time on pupil personnel perceived the influence of the hygiene factors differently. A Scheffe's test was calculated as a follow-up procedure. The procedure indicated that no two groups were significantly different at the 0.05 level.

Table 22

Summary of the Analysis of Variance for the Hygiene Items/Factors: Subgroups Based on Time Spent in Pupil Personnel Task Area Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	6.236	3	2.079	2.754	0.049
Residual	54.340	72	0.755		
Total	60.576	75	0.808		

The eighth ANOVA was computed to determine if assistant principals who spent different percentages of their time on pupil personnel perceived the influence of the motivator factors differently. The results from the ANOVA are presented in Table 23. The overall mean for the subgroup spending 0-25% of the time in pupil personnel was 5.78, for the 26-50% subgroup the overall mean was 5.10, for the 51-75% subgroup the overall mean was 5.65, and for the 76-100% subgroup the overall mean was 5.30 (see Table 4). The F value was 2.699, representing a probability of 0.052; therefore, there is no statistical support (p<.05) for the belief that the assistant principals who spent different percentages of time on pupil personnel perceived the influence of the motivator factors differently.

Table 23

Summary of the Analysis of Variance for the Motivator Items/Factors: Subgroups Based on Time Spent in Pupil Personnel Task Area Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	6.662	3	2.221	2.699	0.052
Residual	59.233	72	0.823		
Total	65.896	75	0.879		

The ninth ANOVA was performed to determine if assistant principals who spent different percentages of their time on student activities perceived the influence of the hygiene factors differently. The results from the ANOVA are presented in Table 24. The overall mean for the subgroup spending 0-25% of the time in student activities was 5.32, for the 26-50% subgroup the overall mean was 5.33, and for the 51-75% subgroup the overall mean was 6.20 (see Table 3). (No respondent reported spending more than 75% of his/her time in this task area.) The F value was 0.470, representing a probability of 0.627; therefore, there is no statistical support (p<.05) for the belief that the assistant principals who spent different percentages of time on student activities perceived the influence of the hygiene factors differently.

Table 24

Summary of the Analysis of Variance for the Hygiene Items/Factors: Subgroups Based on Time Spent in Student Activities Task Area Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	0.769	2	0.385	0.470	0.627
Residual	59.807	73	0.819		
Total	60.576	75	0.808		

The tenth ANOVA was calculated to determine if assistant principals who spent different percentages of their time on student activities perceived the influence of the motivator factors differently. The results from the ANOVA are presented in Table 25. The overall mean for the subgroup spending 0-25% of the time in student activities was 5.59, for the 26-50% subgroup the overall mean was 5.06, and for the 51-75%

subgroup the overall mean was 6.00 (see Table 4). (No respondent reported spending more than 75% of his/her time in this task area.) The F value was 1.271, representing a probability of 0.287; therefore, there is no statistical support ($p<.05$) for the hypothesis that the assistant principals who spent different percentages of time on student activities perceived the influence of the motivator factors differently.

Table 25

Summary of the Analysis of Variance for the Motivator Items/Factors: Subgroups Based on Time Spent in Student Activities Task Area Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	2.217	2	1.108	1.271	0.287
Residual	63.679	73	0.872		
Total	65.896	75	0.879		

Question Eight

Question 8 was designed to determine if there were differences in the assistant principals' perceptions of the influence of hygiene factors and motivator factors on their job attitude when they were categorized according to whether they perceived themselves as upwardly mobile or in a career position. Two ANOVAs were computed. The first was performed to determine if the assistant principals when categorized according to whether they perceived themselves as upwardly mobile or in a career position perceived the influence of the hygiene factors differently. The results from the ANOVA are presented in Table 26. The overall mean for the subgroup perceiving they would almost certainly be promoted within 5 years was 5.33 which was the same as the group perceiving they had almost no chance of being promoted (see Table 3). The F value was 0.000, representing a probability of 0.992; therefore, there is no statistical support (p<.05) for the belief that the way in which the assistant principals' perceived their chances for promotion made a difference in how they perceived the influence of the hygiene factors.

Table 26

Summary of the Analysis of Variance for the Hygiene Items/Factors: Subgroups Based on Perceived Chance of Advancement Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	0.000	1	0.000	0.000	0.992
Residual	60.576	74	0.819		
Total	60.576	75	0.808		

The second ANOVA was calculated to determine if assistant principals when categorized according to whether they perceived themselves as upwardly mobile or in a career position perceived the influence of the motivator factors differently. The results from the ANOVA are presented in Table 27. The overall mean for the subgroup perceiving an almost certain chance of promotion was 5.60 and for the subgroup perceiving almost no chance the overall mean was 5.52 (see

Table 4). The F value was 0.133, representing a probability of 0.717; therefore, there is no statistical support (p<.05) for the proposition that the way in which the assistant principals' perceived their chances for promotion made a difference in how they perceived the influence of the motivator factors.

Table 27

Summary of the Analysis of Variance for the Motivator Items/Factors: Subgroups Based on Perceived Chance of Advancement Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	0.118	1	0.118	0.133	0.717
Residual	65.778	74	0.889		
Total	65.896	75	0.879		

Post Hoc Analysis

The best that can probably be said about the analysis that has been completed to answer the research questions is that there was a difference in how the assistant principals perceived the influence of the hygiene and motivator factors with more influence being attributed to the motivators. However, no matter how the assistant principals were subgrouped based on background/school variables, the differences in how they perceived the influence of the hygiene and motivator factors were practically nil. Specifically, in answering questions 2 through 8 it was necessary to compute 22 one-way ANOVAs and of this group of ANOVAs only one was significant at the preset probability level of <.05. (Given the repeated number of "F" tests done using selected subgroups of the study participants one would expect more than this number of significant F values by pure chance.)

Because of the perceived weakness of the design involving computing several Fs for a single group it was decided to do three types of post hoc analysis. First, it was decided to do a post hoc analysis in order to check for interaction among selected subgroups for the hygiene items/factors and on the motivator items/factors. Specifically, based on conventional wisdom that there very well might be differences based on gender, grade level of school where the assistant principal was employed, and how the assistant principal perceived his or her chance of promotion, two three-way ANOVAs were computed using these three subgroups. One ANOVA was performed using the overall mean of the hygiene items/factors as the dependent variable and the other ANOVA was calculated using the overall mean of the motivator items/factors as the dependent variable. The second type of post hoc analysis also dealt with the three variables mentioned previously (gender, grade level of school where the assistant principal was employed, and how the assistant principal perceived his or her chance of promotion). Each variable was divided into the appropriate subsets and correlated t tests were calculated for each subset using the overall hygiene mean and the overall motivator mean for that subset. The third type of post hoc analysis was done to determine if there were differences in how selected subgroups perceived individual hygiene items/factors and individual motivator items/factors. A one-way ANOVA was computed for each individual item/factor that met the following criteria: the distribution of the participants in the subgroup was diverse and the range between the item/factor means was greater than 1.5. Using these criteria, 10 one-way ANOVAs were calculated.

The results of the three-way ANOVA calculated to determine if there were any significant ($p<.05$) interactions among the gender, grade level of school where employed, and perceived chance of advancement subgroups in regard to the hygiene items/factors are presented in Table 28. As expected, there were no significant ($p<.05$) results for the main effects. The F values of the three subgroups (gender, grade level of school where employed, and perceived chance of advancement) were 1.858 ($p=0.177$), 2.486 ($p=0.119$), and 0.205 ($p=0.653$), respectively. The interaction between gender and perceived chance of advancement ($F=0.001$, $p=0.970$), the interaction between grade level of school where employed and perceived chance of advancement ($F=0.048$, $p=0.827$), and the interaction among gender, grade level of school where employed, and perceived chance of advancement ($F=0.111$, $p=0.740$) showed no significant (p.<05) results. The interaction between gender and grade level of school where employed had a F value of 4.488, representing a probability of 0.038; therefore, there is statistical support ($p<.05$) that there was an interaction between gender and grade level of school where employed. The overall hygiene items/factors mean for the males employed in schools with grades 6-8 it was 5.43, for males employed in schools with grades 9-12 it was 5.38, for females employed in schools with grades 6-8 it was 5.75, and for females employed in schools with grades 9-12 it was 4.57.

Table 28

Summary of the Three-Way Analysis of Variance for the Hygiene Items/Factors: Involving the Interaction Among the Subgroups of Gender, Grade Level of School where Employed, and Perceived Chance of Advancement

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	3.372	3	1.124	1.445	0.237
Gender (A)	1.445	1	1.445	1.858	0.177
Grade Level (B)	1.933	1	1.933	2.486	0.119
Perceived Chance of Advancement (C)	0.159	1	0.159	0.205	0.653
2-Way Interactions	4.238	3	1.413	1.817	0.152
A X B	3.490	1	3.490	4.488	0.038
A X C	0.001	1	0.001	0.001	0.970
B X C	0.037	1	0.037	0.048	0.827
3-Way Interactions	0.087	1	0.087	0.111	0.740
A X B X C	0.087	1	0.087	0.111	0.740
Explained	7.697	7	1.100	1.414	0.214
Residual	52.880	68	0.778		
Total	60.576	75	0.808		

The results of the three-way ANOVA calculated to determine if there were any significant (p<.05) interactions among the gender, grade level of school where employed, and perceived chance of advancement subgroups in regard to the motivator items/factors are presented in Table 29. There were no significant (p<.05) differences for the main effects. The F values

Table 29

Summary of the Three-Way Analysis of Variance for the Motivator Items/Factors: Involving the Interaction Among the Subgroups of Gender, Grade Level of School where Employed, and Perceived Chance of Advancement

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	1.969	3	0.656	0.737	0.534
Gender (A)	0.177	1	0.177	0.198	0.658
Grade Level (B)	1.676	1	1.676	1.883	0.175
Perceived Chance of Advancement (C)	0.227	1	0.227	0.255	0.615
2-Way Interactions	3.095	3	1.032	1.158	0.332
A X B	2.918	1	2.918	3.277	0.075
A X C	0.179	1	0.179	0.201	0.656
B X C	0.084	1	0.084	0.095	0.759
3-Way Interactions	0.276	1	0.276	0.310	0.580
A X B X C	0.276	1	0.276	0.310	0.580
Explained	5.340	7	0.763	0.857	0.544
Residual	60.556	68	0.891		
Total	65.896	75	0.879		

of the three subgroups (gender, grade level of school where employed, and perceived chance of advancement) were 0.198 (p=0.658), 1.883 (p=0.175), and 0.255 (p=0.615), respectively. For the three two-way interactions there were no significant (p<.05) results. Finally, the three-way interaction among gender, grade level of school where employed, and and perceived chance of advancement produced no significant ($p<.05$) results. The F value for the interaction was 0.310, representing a probability of 0.580.

As noted, the first correlated t test was performed to determine if there was a significant difference ($p< .05$) for the males between the overall mean of the hygiene items/factors (5.40) and the overall mean of the motivator items/factors (5.56). The results from the correlated t test are presented in Table 30. The t value was 1.68, representing a probability of 0.099; therefore, there was no statistical support at the preset level of probability for the notion that the male assistant principals perceived the influence of hygiene factors and motivator factors differently.

Table 30

Summary of the Correlated t Test: Hygiene Items/Factors Compared to Motivator Items/Factors for Males

Variable	Mean	SD	df	t	p
Hygiene	5.40	0.717	57	1.68	0.099
Motivator	5.56	0.862			

The second correlated t test was calculated to determine if there was a significant difference ($p<.05$) for the females between the overall mean of the hygiene items/factors (5.09) and the overall mean of the motivator items/factors (5.48). The results from the correlated t test are presented in Table 31. The t value was 4.12, representing a probability of 0.001; therefore, there was statistical evidence at the preset level of probability that the female assistant principals perceived hygiene factors and motivator factors differently.

Table 31

Summary of the Correlated t Test: Hygiene Items/Factors Compared to Motivator Items/Factors for Females

Variable	Mean	SD	df	t	p
Hygiene	5.09	1.329	17	4.12	0.001
Motivator	5.48	1.176			

The third correlated t test was computed to determine if there was a significant difference ($p<.05$) for assistant principals employed in schools with grades 6-8 between the overall mean of the hygiene items/factors (5.51) and the overall mean of the motivator items/factors (5.71). The results from the correlated t test are presented in Table 32. The t value was 1.89, representing a probability of 0.068; therefore, there was no statistical evidence at the preset level of probability that the assistant principals employed in schools with grades 6-8 perceived the influence of hygiene factors and motivator factors differently.

The fourth correlated t test was computed to determine if there was a significant difference ($p<.05$) for assistant principals employed in

Table 32

Summary of the Correlated t Test: Hygiene Items/Factors Compared to Motivator Items/Factors for the Assistant Principals Employed in Schools with Grades 6-8

Variable	Mean	SD	df	t	p
Hygiene	5.51	0.699	33	1.89	0.068
Motivator	5.71	0.875			

schools with grades 9-12 between the overall mean of the hygiene items/factors (5.19) and the overall mean of the motivator items/factors (5.41). The results from the correlated t test are presented in Table 33. The t value was 2.05, representing a probability of 0.047; therefore, there was statistical support at the preset level of probability for the proposition that the assistant principals employed in schools with grades 9-12 perceived the hygiene factors and motivator factors differently.

The fifth correlated t test was computed to determine if there was a significant difference ($p<.05$) for assistant principals who perceived themselves as having no chance of promotion between the overall mean of the hygiene items/factors (5.33) and the overall mean of the motivator items/factors (5.52). The results from the correlated t test are presented in Table 34. The t value was 2.03, representing a probability of 0.047; therefore, there was statistical evidence at the preset level of probability that the assistant principals who perceived themselves as having no chance of promotion perceived the influence of hygiene factors and motivator factors differently.

Table 33

Summary of the Correlated t Test: Hygiene Items/Factors Compared to Motivator Items/Factors for the Assistant Principals Employed in Schools with Grades 9-12

Variable	Mean	SD	df	t	p
Hygiene	5.19	1.018	41	2.05	0.047
Motivator	5.41	0.975			

Table 34

Summary of the Correlated t Test: Hygiene Items/Factors Compared to Motivator Items/Factors for the Assistant Principals who Perceived Themselves as Having No Chance of Promotion

Variable	Mean	SD	df	t	p
Hygiene	5.33	0.822	52	2.03	0.047
Motivator	5.52	0.908			

The sixth correlated t test was calculated to determine if there was a significant difference ($p<.05$) for assistant principals who perceived themselves as having an almost certain chance of promotion between the overall mean of the hygiene items/factors (5.33) and the overall mean of the motivator items/factors (5.60). The results from the correlated t test are presented in Table 35. The t value was 1.97, representing a probability of 0.061; therefore, there was no statistical support at the preset level of probability for the idea that the assistant principals who perceived themselves as having an almost certain chance of promotion perceived the hygiene factors and motivator factors differently.

Table 35

Summary of the Correlated t Test: Hygiene Items/Factors Compared to Motivator Items/Factors for the Assistant Principals who Perceived Themselves as Having an Almost Certain Chance of Promotion

Variable	Mean	SD	df	t	p
Hygiene	5.33	1.076	22	1.97	0.061
Motivator	5.60	1.021			

The first one-way ANOVA that was calculated was to determine if there was a difference in how the assistant principals in the different age groups perceived the influence of hygiene item/factor number 3 which dealt with the influence of school policy and administration. The mean of item/factor number 3 for the 21-32 years of age subgroup was 4.00, for the 33-40 subgroup the mean was 4.77, for the 41-48 subgroup the mean was 5.52, for the 49-56 subgroup the mean was 4.85, and for the 57 and over subgroup the mean was 5.00 (see Table 3). The results from the ANOVA are presented in Table 36. The F value was 0.956, representing a probability of 0.437; therefore, there is no statistical support (p<.05) for the proposition that age made a difference in how the assistant principals perceived the influence of school policy and administration.

Table 36

Summary of the Analysis of Variance for Hygiene Item/Factor 3: Age Subgroups Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	8.822	4	2.206	0.956	0.437
Residual	163.849	71	2.308		
Total	172.671	75	2.302		

A second one-way ANOVA that was computed was to determine if there was a difference in how the assistant principals in different age groups perceived the influence of hygiene item/factor number 4 which dealt with the influence of personal life. The mean of item/factor number 4 for the 21-32 years of age subgroup was 1.00, for the 33-40 subgroup the mean was 4.00, for the 41-48 subgroup the mean was 4.92, for the 49-56 subgroup the mean was 4.40, and for the 57 and over subgroup the mean was 4.23 (see Table 3). The results from the ANOVA are presented in Table 37. The F value was 2.223, representing a probability of 0.075; therefore, there is no statistical support (p<.05) for the belief that age made a difference in how the assistant principals perceived the influence of personal life.

Table 37

Summary of the Analysis of Variance for Hygiene Item/Factor 4: Age Subgroups Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	21.408	4	5.352	2.223	0.075
Residual	170.948	71	2.408		
Total	192.355	75	2.565		

A third one-way ANOVA that was performed was to determine if the assistant principals with different degrees perceived the influence of hygiene item/factor number 4 which dealt with the influence of personal life differently. The results from the ANOVA are presented in Table 38. The mean of item/factor 4 for the master's degree subgroup was 4.42, for the Ed.S/6th year subgroup the mean was 3.85, and for the doctorate subgroup the mean was 6.00 (see Table 3). The F value was 2.922, representing a probability of 0.060; therefore, there is no statistical support (p<.05) for the hypothesis that the degrees held by the assistant principals made a difference in how they perceived the influence of personal life.

Table 38

Summary of the Analysis of Variance for Hygiene Item/Factor 4: Degree Subgroups Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	14.256	2	7.128	2.922	0.060
Residual	178.099	73	2.440		
Total	192.355	75	2.565		

The fourth one-way ANOVA that was computed was to determine if the assistant principals with varying years of experience as an assistant principal perceived the influence of hygiene item/factor number 4 which dealt with personal life differently. The results from the ANOVA are presented in Table 39. The mean of item/factor number 4 for the 1-5 years of experience as assistant principal subgroup was 4.14, for the 6-10 subgroup the mean was 5.17, for the 11-15 subgroup the mean was 3.60, for the 16-20 subgroup the mean was 4.00, and for the 21 and over subgroup the mean was 5.29 (see Table 3). The F value was 2.694, representing a probability of 0.038; therefore, there is statistical support ($p<.05$) for the proposition that the assistant principals' years of experience made a difference in how they perceived the influence of personal life. A Scheffe's test was calculated as a follow-up procedure. The procedure indicated that no two groups were significantly different at the 0.05 level.

Table 39

Summary of the Analysis of Variance for Hygiene Item/Factor 4: Experience as an Assistant Principal Subgroups Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	25.344	4	6.336	2.694	0.038
Residual	167.011	71	2.352		
Total	192.355	75	2.565		

The fifth one-way ANOVA that was calculated was to determine if there was a difference in how those in the age groups perceived the influence of motivator item/factor number 9 which dealt with the influence of possibility of growth. The mean of item/factor number 9 for the 21-32 years of age subgroup was 7.00, for the 33-40 subgroup the mean was 5.77, for the 41-48 subgroup the mean was 5.60, for the 49-56 subgroup the mean was 5.00, and for the 57 and over subgroup the mean was 5.23 (see Table 4). The results from the ANOVA are presented in Table 40. The F value was 1.077, representing a probability of 0.374; therefore, there is no statistical support (p<.05) for the belief that age made a difference in how the assistant principals perceived the influence of possibility of growth.

The sixth one-way ANOVA that was computed was to determine if the assistant principals who spent different percentages of their time on pupil personnel perceived the influence of motivator item/factor number 9

Table 40

Summary of the Analysis of Variance for Motivator Item/Factor 9: Age Subgroups Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	9.305	4	2.326	1.077	0.374
Residual	153.367	71	2.160		
Total	162.671	75	2.169		

which dealt with possibility of growth differently. The results from the ANOVA are presented in Table 41. The mean of item/factor number 9 for the 0-25% pupil personnel subgroup was 5.76, for the 26-50% subgroup the mean was 5.29, for the 51-75% subgroup the mean was 5.23, and for the 76-100% subgroup the mean was 4.20 (see Table 4). The F value was 1.992, representing a probability of 0.123; therefore, there is no statistical support (p<.05) for the proposition that the assistant principals who spent different percentages of time on pupil personnel perceived the influence of possibility of growth differently.

The seventh one-way ANOVA that was calculated was to determine if there was a difference in how the assistant principals in the different age groups perceived the influence of motivator item/factor number 10 which dealt with advancement. The mean for item/factor number 10 for the 21-32 years of age subgroup was 7.00, for the 33-40 subgroup the mean was 5.24, for the 41-48 subgroup the mean was 5.40, for the 49-56 subgroup the mean was 3.95, and for the 57 and over subgroup the mean

Table 41

Summary of the Analysis of Variance for Motivator Item/Factor 9: Subgroups Based on Time Spent in Pupil Personnel Task Area Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	12.467	3	4.156	1.992	0.123
Residual	150.204	72	2.086		
Total	162.671	75	2.169		

was 4.39 (see Table 4). The results from the ANOVA are presented in Table 42. The F value was 2.755, representing a probability of 0.034; therefore, there is statistical support (p<.05) for the hypothesis that age made a difference in how the assistant principals perceived the influence of advancement. A Scheffe's test was calculated as a follow-up procedure. The procedure indicated that no two groups were significantly different at the 0.05 level.

The eighth one-way ANOVA that was computed was to determine if there was a difference in how those in the different age groups perceived the influence of hygiene item/factor number 13 which dealt with the influence of working conditions. The mean for item/factor number 13 for the 21-32 years of age subgroup was 3.00, for the 33-40 subgroup the mean was 5.24, for the 41-48 subgroup the mean was 5.44, for the 49-56 subgroup the mean was 4.85, and for the 57 and over subgroup the mean was 4.92 (see Table 3). The results from the ANOVA are presented in Table 43. The F value was 1.337, representing a probability of 0.265;

therefore, there is no statistical support ($p<.05$) for the proposition that age made a difference in how the assistant principals perceived the influence of working conditions.

Table 42

Summary of the Analysis of Variance for Motivator Item/Factor 10: Age Subgroups Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	33.691	4	8.423	2.755	0.034
Residual	217.086	71	3.058		
Total	250.776	75	3.344		

Table 43

Summary of the Analysis of Variance for Hygiene Item/Factor 13: Age Subgroups Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	9.242	4	2.311	1.337	0.265
Residual	122.692	71	1.728		
Total	131.934	75	1.759		

The ninth one-way ANOVA that was performed was to determine if there was a difference in how the assistant principals in the different age groups perceived the influence of motivator item/factor number 14 which dealt with the influence of work itself. The mean for item/factor number 14 for the 21-32 years of age subgroup was 4.00, for the 33-40 subgroup the mean was 5.47, for the 41-48 subgroup the mean was 5.80, for the 49-56 subgroup the mean was 5.30, and for the 57 and over subgroup the mean was 6.15 (see Table 4). The results from the ANOVA are presented in Table 44. The F value was 1.324, representing a probability of 0.269; therefore, there is no statistical support (p<.05) for the belief that age made a difference in how the assistant principals perceived the influence of work itself.

Table 44

Summary of the Analysis of Variance for Motivator Item/Factor 14: Age Subgroups Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	9.557	4	2.389	1.324	0.269
Residual	128.128	71	1.805		
Total	137.684	75	1.836		

The tenth one-way ANOVA that was computed was to determine if the assistant principals who spent different percentages of their time on pupil personnel perceived the influence of motivator item/factor number 14 which dealt with the influence of work itself differently. The results from the ANOVA are presented in Table 45. The mean of item/factor number 14 for the 0-25% pupil personnel subgroup was 6.08, for the 26-50% subgroup the mean was 4.57, for the 51-75% subgroup the mean was 6.00, and for the 76-100% subgroup the mean was 5.80 (see Table 4). The F value was 7.561, representing a probability of 0.000; therefore, there is statistical support (p<.05) for the belief that the assistant principals, who spent different percentages of time on pupil personnel perceived the influence of work itself differently. A Scheffe's test was calculated as a follow-up procedure. The procedure indicated that assistant principals who spent 26-50% of their time in pupil personnel differed significantly (p<.05) from those assistant principals who spent 0-25% of their time in pupil personnel and those assistant principals who spent 51-75% of their time in pupil personnel.

Table 45

Summary of the Analysis of Variance for Hygiene Item/Factor 14: Subgroups Based on Time Spent in Pupil Personnel Task Area Compared

Source of Variation	Sum of Squares	df	Mean Square	F	p
Main Effects	32.985	3	10.995	7.561	0.000
Residual	104.700	72	1.454		
Total	137.684	75	1.836		

CHAPTER 4
SUMMARY, CONCLUSIONS, AND DISCUSSION

Summary

The position of assistant principal is increasingly being viewed by top-level education leaders as a career position (Iannacone & Podorf, 1984). This is especially true in large urban school districts such as the Orange County, Florida, Public School System. If individuals are to remain in the position of assistant principal for a number of years, it is important to understand what can be done to motivate them.

The focus of the study was to determine the extent to which the two-factor theory, as described by Herzberg, Mausner, and Snyderman (1959), applies to the role of assistant principal in secondary schools of a large urban school district and if there were differences based on certain assistant principal background/school factors. Specifically, answers to the following questions were sought for the secondary assistant principal employed in the Orange County, Florida, Public School System during the 1988-89 school year:

1. Were there differences in how the assistant principals perceived the influence of hygiene and motivator factors on their job attitude?

2. Were there differences between the male and female assistant principals in regard to their perceptions of the influence of hygiene and motivator factors on their job attitude?

3. When the assistant principals were categorized according to chronological age were there differences in regard to their perceptions of the influence of hygiene and motivator factors on their job attitude?

4. When the assistant principals were categorized according to their level of formal education were there differences in regard to their perceptions of the influence of hygiene and motivator factors on their job attitude?

5. When the assistant principals were categorized according to their years of experience as an assistant principal were there differences in regard to their perceptions of the influence of hygiene and motivator factors on their job attitude?

6. When the assistant principals were categorized by school grade level (i.e., grade 6-8 or 9-12) were there differences in regard to their perceptions of the influence of hygiene and motivator factors on their job attitude?

7. When the assistant principals were categorized according to the amount of time they reported they spend on (a) school management, (b) staff personnel, (c) community relations, (d) student activities, (e) curriculum and instruction, and (f) pupil personnel were there differences in regard to their perceptions of the influence of hygiene and motivator factors on their job attitude?

8. When the assistant principals were categorized according to the extent to which they perceived themselves as having a chance to be promoted to a principalship were there differences in regard to their perceptions of the influence of hygiene and motivator factors on their job attitude?

The study was confined to 83 assistant principals employed in the 18 middle schools and 10 high schools in the Orange County Public School System during the 1988-89 school year. A survey packet was sent to each assistant principal. Each packet included a cover letter and a two-part instrument: the general background part and the job factors part. The job factors part was used to determine how each assistant principal perceived the 16 job factors of Herzberg et al. (1959) as influencing his or her job attitude. One month later second packet was sent to all those not responding. The results of the study were based on the data gathered from the 76 persons who completed the two-part instrument.

Inferential statistics were used in the study in order to answer the research questions. Specifically for question 1 a correlated t test was computed. One-way ANOVAs were calculated for questions 2-8. Post hoc analysis was also completed for questions 2-8 using the following statistical methods: three-way ANOVA, correlated t test, and one-way ANOVA.

Based on the analysis of data the following major findings relative to the research questions emerged:

1. There was a significant difference at the .05 level in the perceived influence on the job attitude of the assistant principals between the hygiene items/factors and the motivator items/factors with the motivator items/factors being perceived as having the greater influence.

2. There was a significant difference at the .05 level in regard to the perceived influence of the hygiene items/factors on job attitude when the assistant principals were subgrouped by the amount of time they spent in the task area of pupil personnel.

3. There were no significant differences at the .05 level in regard to the following:

a. the perceived influence of the hygiene items/factors or the motivator items/factors on job attitude when the assistant principals were subgrouped by gender;

b. the perceived influence of the hygiene items/factors or the motivator items/factors on job attitude when the assistant principals were subgrouped by age;

c. the perceived influence of the hygiene items/factors or the motivator items/factors on job attitude when the assistant principals were subgrouped by degree;

d. the perceived influence of the hygiene items/factors or the motivator items/factors on job attitude when the assistant principals were subgrouped by years of experience as an assistant principal;

e. the perceived influence of the hygiene items/factors or the motivator items/factors on job attitude when the assistant principals were subgrouped by grade level of school where employed;

f. the perceived influence of the hygiene items/factors or the motivator items/factors on job attitude when the assistant principals were subgrouped by the amount of time they spent in the task areas of curriculum and instruction, school management, staff personnel, student activities, and community relations;

g. the perceived influence of the motivator items/factors on job attitude when the assistant principals were subgrouped by the amount of time they spent in the task area of pupil personnel; and

h. the perceived influence of the hygiene items/factors or the motivator items/factors on job attitude when the assistant principals were subgrouped by how they perceived their chances for advancement within the next 5 years.

From the post hoc analysis the following findings emerged:

1. There was a significant interaction at the .05 level relative to the perceived influence of the hygiene items/factors on the assistant principals' job attitude between gender and grade level of school where employed.

2. There was a significant difference at the .05 level in the perceived influence on job attitude of the female assistant principals between the hygiene items/factors and the motivator items/factors.

3. There was a significant difference at the .05 level in the perceived influence on job attitude of the assistant principals employed in schools with grades 9-12 between the hygiene items/factors and the motivator items/factors.

4. There was a significant difference at the .05 level in the perceived influence on job attitude of the assistant principals who perceived themselves as having no chance of advancement within in the next 5 years between the hygiene items/factors and motivator items/factors.

5. There was a significant difference at the .05 level in regard to the perceived influence of the hygiene item/factor which dealt with the influence of personnel life when the assistant principals were subgrouped by years of experience as an assistant principal.

6. There was a significant difference at the .05 level in regard to the perceived influence of the motivator item/factor which dealt with the

influence of advancement when the assistant principals were subgrouped by age.

7. There was a significant difference at the .05 level in regard to the perceived influence of the motivator item/factor which dealt with the influence of work itself when the assistant principals were subgrouped by the amount of time they spent in the task area of pupil personnel.

8. There were no significant differences at the .05 level relative to the following:

a. the perceived influence of the hygiene items/factors or the motivator items/factors on job attitude for the interaction among gender and grade level of school where employed, grade level of school where employed and perceived chance of advancement, and gender, grade level of school where employed, and perceived chance of advancement interaction;

b. the perceived influence between the hygiene items/factors and the motivator items/factors on job attitude of the male assistant principals, the assistant principals employed in schools with grades 6-8, and the assistant principals who perceived themselves as having almost certain chance of advancement within 5 years;

c. the perceived influence of the hygiene items/factors which dealt with the influence of school policy and administration, personal life, or working conditions when the assistant principals were subgrouped by age;

d. the perceived influence of the hygiene item/factor which dealt with the influence of personal life when the assistant principals were subgrouped by degree held.

e. the perceived influence of the motivator item/factor which dealt with the influence of possibility of growth when the assistant principals were subgrouped by age and when they were subgrouped by the amount of time they spent in the task area of pupil personnel; and

f. the perceived influence of the motivator item/factor which dealt with the influence of work itself when the assistant principals were subgrouped by age.

Conclusions

Based on the results of the study, two major conclusions appear evident. First, the motivator factors are perceived differently from the hygiene factors with the assistant principals believing that the motivator factors have a greater influence on their job attitude than do the hygiene factors. However, the assistant principals also attribute considerable influence to the hygiene factors. This conclusion appears to be justified in that there was a significant difference ($p<.05$) in the overall means in favor of the motivator factors. (The overall mean for the hygiene factors for the total group was 5.33 and the overall mean for the motivator factors was 5.54). The idea that they also placed considerable importance on the hygiene factors is evident by the fact that the overall mean was above 5.00 on a 7-point scale.

Second, there is only the most limited relationship between background and school factors and perceptions of the influence on job attitude of the hygiene factors or the motivator factors. This is justified by the finding that of the 22 one-way ANOVAs computed for questions 2 through 8 only one was significant ($p<.05$) and in the post hoc analysis only one interaction out of a possible 8 was significant and only 6 differences out of a possible 16 were significant.

Discussion

Given the need to continue motivate assistant principals and the sparsity of research in the area, this study was an effort to answer some questions about the applicability of the two-factor theory to secondary school assistant principals of a large urban school district where there were concerns about the number of assistant principals who were not upward mobile. Therefore, the discussion is focused on the results of the study in relation to previous research and the applicability of the results to the work place.

The results of this study are generally consistent with other studies in the field of education in regard to the relative influence of the hygiene and motivator variables. In the present study, as in most previous studies, the motivator factors were perceived as having more influence in developing a positive job attitude than were the hygiene factors. Previous findings regarding the influence of moderating variables (background/school factors) are mixed. For example, Goodson (1984) found no significant relationships between the subjects' gender, race, educational degree, tenure, type of school, or grade taught and the motivator factors or the hygiene factors. However, both Wiggins and Lederer (1983) and Chapman and Lowther (1982) found that gender had a moderating effect on work satisfaction. In the present study the effects of the background/school variables on the perceived influence of the motivator items/factors and/or the hygiene items/factors on the assistant principals' job attitude were most limited. However, given the possibility of gender, grade level of school where employed, and belief about chances of promotion making a difference, further research relative to the moderating variables (background/school variables) is warranted.

School boards, district-level administrators, and principals need to be aware of both motivator factors and hygiene factors which affect public secondary school assistant principals. This is especially important when faced with the limited availability of positions which represent job advancement for secondary-level assistant principals. Based on the results of the present study, it seems logical to suggest that top-level educational leaders need to incorporate Herzberg's (1966) motivator factors (e.g., achievement, recognition, work itself, responsibility, advancement, & possibility of growth) into their motivational programs for secondary school assistant principals. However, they cannot ignore such hygiene factors as relationships with subordinates, colleagues, and supervisors as well as the quality of supervision provided.

Specifically, as a total group the secondary assistant principals perceived achievement as the most important motivator factor influencing their job attitude with responsibility a "close second." Principals and district-level managers would do well to consider these two factors when defining the roles the assistant principal will play. Advancement, on the other hand, was seen as the least important motivator factor influencing job attitude. For superior administrators to use the hope of advancement as a means of motivating secondary assistant principals, would seem to be ineffective in most cases.

As has been noted, when the assistant principals were subgrouped by gender it was found that females perceived a significant difference between the influence of the motivator items/factors and hygiene items/factors placing greater emphasis on the motivator items/factors. This was also true of those assistant principals employed in schools with grades 9-12 and assistant principals who perceived themselves as having no chance of advancement within the next 5 years. The obvious implication for the top-level managers is that for these subgroups the motivator items/factors are extremely important to their job attitude and should be given considerable emphasis.

APPENDIX

STUDY QUESTIONNAIRE

PART I GENERAL INFORMATION

1. Gender Male ________ Female _____

2. Age 21-32 ______ 49-56 ______
33-40 ______ 57-over _____
41-48 ______

3. Highest degree held

a. bachelors _____ c. Ed.S./6th year _____
b. masters ______ d. doctorate _________

4. Years of experience (counting this year) as a middle, junior high, or high school assistant principal.

01-05 ______ 16-20 ______
06-10 ______ 21-over _____
11-15 ______

5. Grade level of school where you currently serve as an assistant principal.

grades 6 - 8 _______
grades 9 - 12 ______

6. What percentage of your duties is in each of the following categories? (Estimate as best you can.)

a. Curriculum and Instruction ---------------- ________%
(e.g., master schedule, exam schedule,teacher evaluation, curriculum development, field trips)
b. School Management ----------------------- ________%
(e.g., school budget, custodial and clerical services, transportation, facility usage, emergency plans)
c. Staff Personnel ------------------------- ________%
(e.g.,teacher selection, substitute teachers, teacher records, teacher "duty" roster, faculty meetings)
d. Pupil Personnel ------------------------- ________%
(e.g., attendance, discipline, school guidance program)
e. Student Activities ---------------------- ________%
(e.g., assemblies, school clubs, athletics, social events)
f. Community Relations -------------------- ________%
(e.g., P.R. program, PTSA activities, community functions, booster clubs)

TOTAL 100 %

7. How do you rate your chances to be appointed to a principalship in the next five (5) years?

a. Almost no chance _____
b. Almost certain chance ______

PART II JOB FACTORS

The second part of this questionnaire contains a series of 16 job factors for you to evaluate. A brief description of each factor is provided so that you may know its meaning as used in this study. Indicate to what degree each job factor contributes to a positive job attitude in your present position. Please place an "X" on the line at the point that best indicates your belief. The scale goes from 1 indicating no contribution toward an positive job attitude to 7 indicating a major contribution toward a positive job attitude. Below you will find an example of one job factor and the rationale that may be reflected for an "X" placed at three different points.

EXAMPLE

Achievement: Successful completion of a job, experiencing solutions to different problems, seeing the results of one's work.

X____________X____________X
1 2 3 4 5 6 7

RATIONALE

An "X" placed over the seven (7) would indicate that you feel the job factor Achievement makes a major contribution toward a positive job attitude in your present position.

An "X" placed over the four (4) would indicate that you feel the job factor Achievement makes an average contribution toward a positive job attitude in your present position.

An "X" placed over the one (1) would indicate that you feel the job factor Achievement makes no contribution toward a positive job attitude in your present position.

JOB FACTORS

1. Achievement: Successful completion of a job, experiencing solutions to different problems, seeing the results of one's work.

1 2 3 4 5 6 7

2. Interpersonal relations with subordinates: Basic quality of daily dealings with one's staff and/or students.

1 2 3 4 5 6 7

3. School policy and administration: The rules, regulations, and organizational procedures under which you work.

1 2 3 4 5 6 7

4. Personal life: Aspects of the job which influence or affect your personal life.

1 2 3 4 5 6 7

5. Responsibility: Control over one's own job duties

1 2 3 4 5 6 7

6. Supervision: The competence and fairness of your supervisor.

1 2 3 4 5 6 7

7. Recognition: To be singled out for praise or accomplishment for work well done.

1 2 3 4 5 6 7

8. Interpersonal relationships with colleagues: Basic quality of daily dealings with one's co-workers.

1 2 3 4 5 6 7

9. Possibility of growth: The opportunity to advance one's own professional skills.

1 2 3 4 5 6 7

10. Advancement: The opportunity for promotion within the organization.

1 2 3 4 5 6 7

11. Salary: Satisfaction with one's contract salary.

1 2 3 4 5 6 7

12. Interpersonal relationships with supervisors: Basic quality of daily dealings with one's supervisor.

1 2 3 4 5 6 7

13. Working conditions: The physical conditions in which you work.

1 2 3 4 5 6 7

14. Work itself: Satisfaction with the actual tasks involved in performing the duties of the position.

1 2 3 4 5 6 7

15. Status: Your satisfaction with your position within your school, district, and community.

1 2 3 4 5 6 7

16. Job security: Objective indications of security, such as tenure.

1 2 3 4 5 6 7

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BIOGRAPHICAL SKETCH

Bruce Lester Suther was born in Washington, DC. His family move to Orlando, Florida in 1953. He graduated from Edgewater High School in 1968. He received a Bachelor of Science degree in business administration in 1972 and a Master's of Education degree in 1979 from Florida Technological University, now the University of Central Florida, in Orlando, Florida.

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Bruce began his doctoral studies at the University of Florida in the fall of 1984. His professional memberships include the Florida Association of School Administrators and Phi Delta Kappa.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.

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